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Science Fiction

J.E. Pournelle *EXILES TO GLORY*

C.L. Grant

L.E. Modesitt

Spider Robinson

SPECIAL ALL-FABIAN ARTWORK ISSUE!



FLOWER GRANT MODESITT POURNELLE ROBINSON SEPTEMBER 1977

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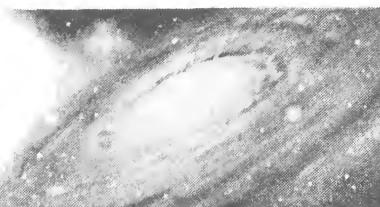
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from *EXILES TO GLORY*

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EXILES TO GLORY

J. E. Pournelle



All he wanted was a quiet life; Achilles' choice was not for Kevin Senecal—but it was not for him to choose . . .

For Dan Alderson, the sane genius . . .

FIRST HE HEARD THE CLICK of the switchblade. Then the whining, feral voice. "Hey man, gimme money!"

There were four of them in his path: two slouching against the wall, two erect and staring. Westwood was deserted. The UCLA campus beyond showed lights, but it might have been in another city for all the good it did him. Kevin tasted sour bile, felt the sharp knot of fear in his stomach. They moved closer.

"Come on, hand it over, you sumbich." The spokesman's blade moved in intricate, blurringly fast passes inches from Kevin's face. It gleamed dully despite the power-saving partial blackout in the city. The blade's wielder laughed as Kevin cringed away.

Kevin was a well-muscled six-footer, had played football for UCLA and made his letter in his junior year before the pressure of studies made him drop from the

team; he was certain he was more than a match for any of them—for any two—but the knife seemed hungry for his eyes, and he felt only fear and shame. His legs wouldn't move. He reached into his pocket and took out his wallet.

"Watch," the mugger said. "Take it off." The whining voice was filled with contempt and sadistic power-lust. Kevin felt it wash over him, and felt contempt for himself. "Turn out all your pockets. Deucey, rub him over."

Another of the young gangsters—they couldn't, Kevin thought, be more than sixteen—came up behind him and rubbed his hands over Kevin's clothes. The hands moved insultingly, paused in insulting places, then reached into his pockets and took out his lighter. "Aw, he's got cigarettes," Deucey said.

"Good for you, mother," the spokesman said. "We cut you if you don't have cigarettes. Cut you good. Now we miss the fun. Get in there." The knife jerked to indicate a dark alleyway.

Kevin was beyond terror. He had never experienced the feeling before, but he recognized it now, like something known previously from a faded photograph. They pushed him off the street and away from his last hope of rescue. The street lights dimmed even more just as they entered the alley; it was almost pitch black in the stinking passageway between buildings. His foot kicked

something, trash or a dead cat, and insanely he thought of the city garbage strike—would anyone find him for weeks? He was certain the gangsters were going to kill him, and kept worrying about that: would the strike end in time for them to find his body?

Suddenly he was surrounded by the smell of naptha, strong enough to overpower the smells of urine and decay in the alley. He felt a chill on scalp and shoulders. Lighter fluid. They were going to burn him alive!

Desperation drove him forward, away from his captors for a moment. The knife had terrified him, but the threat of becoming a living torch did something else. He was no less afraid—more so if that were possible—but now there was rage and hatred as well. He cast about for a weapon, anything to defend himself. He was certain he was going to die, but now he wanted to take them with him, to end this humiliation and show them he was a man—

His hand struck a garbage can. It had a lid, and he seized that by the handle. Years before, when he was only seventeen—it was only five years ago, but at this moment it felt like two lifetimes—he had participated in a tournament held by the Society for Creative Anachronism. The SCA fighters used wooden swords, but their armor and other equipment had been real. He'd been fascinated by the use of shields as weapons. A hand grabbed his hair,

and despair gave him strength of a different order than when he'd fought in the SCA tournament.

He swung the lid blindly, felt it clash, then swung it backhand against the spokesman's face. He felt bone crunch, and shouted his triumph.

As the first gangster screamed Kevin used the shield to deflect another half-seen knife attack, then again blindly swung the lid backhand with all his strength. He couldn't see anything, but he could feel when he connected, and he wanted to hurt them. He hated them with all his soul, and he wanted them to feel as humiliated as he had felt. He struck out again and again, felt the improvised shield strike home at least once more. Then he was past them and in the street.

The sight of freedom ahead robbed him of his rage; he turned and ran. Two of them followed him for a block, but they didn't have the wind to keep up.

He ran on and on, long after he could no longer hear their heel-beats behind him.

★ ★ *

The Los Angeles policeman showing his badge at Kevin's door was big and burly, and looked as if he ought to be in uniform instead of neat civilian tunic and trousers. Kevin's landlady stood disapprovingly behind him in the hall.

"Detective Sergeant Mason," the

policeman said. "May I come in?"

Kevin couldn't think of anything he had done. He was exhausted from standing in lines for his food ration stamps, and he wanted to send the policeman away, but he was afraid that his landlady would believe he was in trouble with the law. Mrs. Jeffries was a good friend to her student tenants. She would let them be late with the rent, but she didn't want police trouble in her rooming house. "What's it about?" Kevin asked. His voice sounded much more calm than he felt.

"This yours?" The policeman held up a wallet.

"Uh—"

"It's got your ID in it," the detective said. "I'm returning it. No big deal. Want to talk about how you lost it?"

"Yes, sure, it's mine," Kevin said. He felt relief, and saw that Mrs. Jeffries had lost her worried look. Kevin winked at her and got a slight smile in return before she left and the policeman came in.

The room wasn't very large. There was a couch that could make into a bed, but it was long enough for Kevin to sleep on without unfolding it, and he never opened it. The walls were lined with bookshelves. Over the years the many students who'd lived there had added to the shelving until there wasn't a bare wall. There were two desks and a table that came from the Salvation Army Thrift Store. At the opposite end from the entrance was

an opening onto an alcove where a stove, refrigerator and cat litter box filled what would not have been a very large closet. The room smelled of food and cats. The desks were littered with papers, pocket calculator, library reader-screen, opened books, drafting tools, and junk mail.

"Reminds me of my student days," Sergeant Mason said. "I stayed down the street in a room just like this. What class are you?"

"Senior. I think."

"Kevin Senecal," Mason said. "Senecal. Unusual name. Don't think I ever heard it before."

"It's Norman French. We think it used to be Seneschale," Kevin told him. "That'd be Stewart in English —you know, meant Steward." He wondered why he was so nervous with this policeman. The cop had brought back his wallet, and Kevin hadn't done anything to be afraid of. But the policeman's manner was unusual, cagey, as if he were trying to think of the right way to say something unpleasant. He didn't think the policeman would have come alone if he'd intended to make an arrest, but why was he acting this way?

Kevin had never had much contact with police: in the neighborhood where he grew up police were to be avoided. Cops didn't have much respect for people on welfare and unemployment. When Greg Tolland's People's Alliance won the White House and Congress that had

changed for a while, but then Tolland was hounded by the press and the Alliance was smeared and things went back to politics as usual and—

His reverie was interrupted by the policeman. "Here." Mason tossed him the wallet. "Put it away. Officially, I never saw it."

"Uh?"

"Look, Kevin—you don't mind if I call you Kevin? We took this off some bad people last night. Guy carrying it had a broken jaw. His buddies were trying to get him to a doctor."

"You caught the bastards! Good work," Kevin said. He looked at the policeman with new respect. His mother, who had once had a better life, had always told him the police were all right. "But isn't the wallet evidence?"

"You don't want to prosecute."

"But—"

"No." The policeman was very firm. "Look, those guys belong to the Green Fence gang. If you identify them, you won't live until the trial. Actually you're probably in trouble anyway; they wouldn't have kept the wallet if they didn't have something in mind. Usually they just take out the money, put the credit cards into an envelope and mail them to friends—and dump the wallet so there's no evidence if we shake them down. They kept yours. I don't have to be very smart to guess why. You did a good job on the guy with the broken jaw. And a better job on the other one."

The policeman was looking carefully at Kevin's face. Kevin didn't care. He was glad that he'd hurt those bastards.

Whatever the policeman saw seemed to please him. "You didn't know, did you?" the cop asked. "You killed one of them. That garbage can lid caught him just at the base of the skull. Clean and neat."

"Jeez—" Kevin felt a rush of shock, fear, and anger. "I never meant to kill anyone! Am I in trouble for that?"

"You would be if we knew who'd done it. But of course we don't. Never found anything at all. They must have ditched the wallet."

It took Kevin a moment to catch on. "But—"

"But nothing," Mason said. "We got ourselves a new DA, a real People's Alliance type, and we've got judges who don't approve of 'deadly force.' Somebody killed a juvenile last night, and you don't kill juvies in this town. That's bad news."

"But they were trying to kill me! They poured lighter fluid on me, to set me on fire!"

"Can you prove that?"

"How the hell could I prove—"

"Exactly," the policeman said. "You can't. And we can't do one damned thing for you, Kevin. If we give you protection the DA will want to know why, and we can't tell him or he'll have you up for manslaughter of a juvie. It gets worse. The Green Fence will be

looking for you. If you're smart they won't find you."

"You're telling me I ought to run because some muggers tried to kill me and I defended myself?" Kevin's face showed anger. His fists clenched and he felt the blood rising—

"Nope." The detective's calm was maddening. "Remember, I don't even know who you are. I'm just returning some property I found while I was off duty. Which, by the way, I am now. You got any beer in that 'frig?"

"Sure." Kevin went to the refrigerator. Snowdrop, his white kitten, was sitting guard on top of it. She mewed hopefully when Kevin opened the door, then looked resigned when no cat food or milk came out.

Mason popped the top of the beer bulb and made a face at it. "I liked this stuff in bottles or cans. Now we got biodegradable cardboard, and it don't taste the same." He drank it anyway, a long healthy glug. "Can you change apartments?"

"I'm a month behind here. There's no way I could get the money for a new place."

"Probably wouldn't help anyway. They'd follow you when you moved. What are your plans?"

"Well, I graduate this term . . ."

"You might last that long. Want some advice? Keep out of dark places. Don't have a routine. Come home at different times, and don't eat in the same place every day.

Keep the shades down and keep your shadow off the shade. Lock up good when you go out. Get a better lock. Get *two* locks. And stay with people you know." Mason drank again. His lips tightened as he set the bulb on the couch arm. "Kevin, do you think I *like* this? I'm a cop. My job is protecting people. And I'm telling you that I can't protect you, that the bastards in City Hall won't let me. I don't like that much, but you tell me—what should I do?"

"I don't know," Kevin said.

"Yeah. Well, if you think of something, let me know."

It seemed appropriate that the lights dimmed just then. The windmills weren't getting enough power, and it took a while to get generators fired up.

* * *

Long after the policeman left Kevin sat at his desk staring at a book. He read the same page three times, but none of it registered. He was afraid. His books said he lived in a post-industrial society and described the benefits in glowing words, but the police couldn't help him.

Out there somewhere was a gang of nameless children—the DA would call them children, and Kevin a child-murderer—and those children would kill him if they could, and the police were helpless. The United States of America in all its awful majesty was no use at all.

The police could give out tickets and harass taxpayer demonstrations but they couldn't protect Kevin's life.

His life had been settled and orderly, completely planned. He would get his degree and go to work for one of the big international corporations, perhaps even go out to one of the near-Earth space industries if he could get a post. Junior engineers weren't paid very well, because nearly everyone graduated from state universities and had some kind of "professional" job—or didn't work at all—but when he got his degree Kevin would be eligible to join a strong union, and the union would keep the pay raises coming. Kevin looked forward to marriage, a house, a car, perhaps a camper and a small boat.

When he told his friends they usually laughed and said it sounded dull, but Kevin didn't mind. Dull was fine, as long as it was secure. After the years of living with his mother and his brother on welfare checks and food stamps, split pea soup, chicken once a week when they were lucky, patched clothes and shoes bought from the Salvation Army, dull-but-secure was attractive. Dull meant buying food in private stores instead of standing in long lines at the cooperatives. Dull meant living in a neighborhood where the police were polite and respectful. Dull meant all the things Kevin had never had and always wanted.

And his dream of dull security was vanishing with the memory of a garbage can lid smacking into human bone.

The book stared back at him. "The most crucial questions that will be faced by every post-industrial society will deal with education, talent, and science policy. The rapid expansion of a professional and technical class, and the increased dependence of the society on scientific manpower, suggest a new and absolutely unique dimension in social affairs: i.e., that the economic growth rate of a post-industrial society will be less dependent on money capital than on 'human capital.'"

The words blurred and the idea was silly to begin with. The most crucial question was: how would Kevin Senecal stay alive long enough to graduate and get his union card so that he could find a job?

* * *

The letter had been generated by a computer. It had his name spelled 'Senegal,' but the student ID number was correct. It was for him.

It told him that two summer classes he'd taken at California State University, Northridge, were not recognized as transferable for credit to UCLA. "As these classes are prerequisite to other classes required for graduation (see schedule 4 below) you may not hold credit in the classes named in schedule 4, and thus you have not completed the

requirements for graduation. Your application for graduation is denied, and your present class status is second-year, commonly called sophomore. Upon completion of the required prerequisites and, following that completion, your successful completion of the courses noted in schedule 4 (see below) you may again make application for graduation."

He read it three times. It said the same thing each time. Instead of graduating in two months, he had two more years of school. He crumpled the letter in rage, but then carefully smoothed it out. These things happened. It was futile to get excited. Computers often made mistakes. He telephoned the UCLA Appointment Exchange and registered a request to see his advisor.

They could give him one in two weeks. He raged silently at the phone, but there was no point in being angry with a computer. It could only understand a very limited vocabulary. After he hung up, he felt ashamed for being so angry. It shouldn't be surprising that it would take a while to see his advisor. There were over 100,000 students at UCLA. It took time to arrange for a human interview.

II

He took the policeman's advice; varied his schedule, stayed off streets at night, and always locked

his doors. His friends didn't notice. He'd always been something of a loner and a bit of a bookworm since he dropped out of the football squad, so there was no one to miss him. The girl he'd been dating had found someone else two days before the muggers had caught him, and except for Wiley Ralston no one would care.

Wiley was a student one year ahead of Kevin, staying on after graduation to specialize in space industry technology. Engineering students were never popular on campus, and those going to space were hated. The One Earth Society, and other anti-technology groups, picketed the engineering building nearly everyday. Their lunch-time demonstrations seldom got out of hand, and Kevin had become accustomed to their shouted insults whenever he went in or came out of his classrooms. Now, though, they began to get on his nerves. When they ritually shouted "murderer!" at him, he remembered the crunch of bone that he'd felt that night in the alley.

"Hey, don't let those nuts shake you," Wiley said as they walked past the demonstrators.

"Aw, they don't," Kevin said. They hurried toward the cafeteria. There was a long line waiting. "Not really, anyway."

"You ever really listen to them?" Wiley asked.

"Once," Kevin said. "Didn't make much sense to me. They kept

telling me we're wasting all that money in space when there's so much needed here, and I know better. Without space technology we'd be a lot worse off than we are now. What goes to space wouldn't help anyway. It's just not enough."

Wiley nodded, then waved at the line ahead of them. "Yeah, except sometimes I wonder."

"You?"

Wiley Ralston laughed. "Not very often. Just sometimes. Like this. Why're so many people lined up for lunch? Because you get a free lunch on your student ID card. Which is why most of these turkeys are students to begin with."

Kevin didn't say anything. It was one reason he'd decided to go to college. The state university was free, and the food at the UCLA cafeteria was better than anything his mother had ever been able to afford on straight welfare.

"Better to be a student and eat than be unemployed," Wiley said. "And hell, it's all this technology that keeps people unemployed. That's the way they see it, anyway."

"You know better," Kevin said. "What's important is production. High production means a lot to go around, and—" He stopped, because Wiley was laughing at him.

"Gotcha," his friend said. He tossed back a shock of unruly red hair and grinned broadly. "You know the trouble with you, old buddy? You care. These jokers say

the world's got to learn to use low technology, be kind to the Earth, live with the land, or our great-grandchildren will have green tentacles or something—"

"They never—"

"And you really worry about whether they're right or not," Wiley finished.

"But they aren't, and I can prove it—"

"So-friggin-what?" Wiley Ralston demanded. "Look, Kev, maybe they're right. Look around you. Food lines in the US of A. Want in the middle of plenty. And that's here! All over the world people are breeding like mad, nobody's got enough of anything, and hell, maybe all this space effort *will* be the last straw, the push that makes the donkey lie down and die. So what? You say space will save the Earth, they say it will kill us, and I say—somebody's going to get rich out there, and that somebody is going to be Wiley Ralston. I'll get mine, and if they're so stupid they'd rather put on demonstrations than get in on a good thing, that's their lookout."

But Wiley had spoken too loudly, and others overheard. An alternate technology group came up to argue. A Zero-Growth group joined in, then some fanatics from the One Earth Society. If the various protestors hadn't got to arguing among themselves the scene might have gotten ugly; as it was, Kevin missed his lunch.

Even so, he preferred to be in crowds. Most of the anti-technology students wouldn't actually harm him. None wanted to kill him. Better them than the Green Fence.

* * *

His advisor was a prim, rather prissy-looking woman in her thirties. She reminded Kevin of a sentence in his sociology book. "The post-industrial society is organized around *knowledge*, and this gives rise to new social relationships and new structures which have to be organized politically." Ms. Rasmussen was the embodiment of that: she had *knowledge*, or was supposed to have, and that gave her power.

As he faced her, Kevin thought that was a bunch of horse pucky. She had a job that gave her power, and she liked that a lot.

"What seems to be the trouble?" she asked. She shoved a form toward him. His student ID card embossed his name and ID number on the form, but he had to fill in the address by hand. She waited until he was finished before she picked up the computer letter Kevin had handed her in response to her question.

She read it through twice. "This seems to be in order," she said.

Kevin wanted to scream at her, but he held his temper. Years of watching his mother manipulate the welfare workers had given him both patience and technique. "Please

ma'am," he said. He felt sick saying it, but forced himself to keep his tone respectful. "This costs me two years of my life. It isn't fair, ma'am. I worked hard, and they tell me I'm still not through. Please, can't you do something?"

She punched buttons on her console. "I'll need your ID card," she said. She inserted the plastic into the machine. Records flowed across the screen. She peered at it, adjusting her glasses with fussy little movements, smiling thinly, a superior smile, the smile of those with power. "It's all in order," she said, "just as the letter tells you. You took the courses without the proper prerequisites, and so of course you're not entitled to credit for them."

"But, ma'am, I had the prerequisites," Kevin whined. He tried to keep his voice pleading, showing that he appreciated all that Ms. Rasmussen was doing for him. The effort made him tense. He hated himself, and suddenly realized that this was the way he'd felt when the muggers had him: helpless and violated. And he felt that way a lot, lately.

"You did not have prerequisites as recognized by this university," Miss Rasmussen said. "I'm sorry, but I can't help you." She sounded pleased. She began marking the form; it would be turned in to record that she'd had another interview. The accounting machines needed the completed form to justify

her job to the Regents. So many interviews completed, requiring so many person-hours, requiring an adjustment and increase in salaries and personnel for the counseling department; in these days of unemployment it was necessary to keep one's forms in order.

"But," Kevin stammered. He almost lost control of his voice, but regained it with effort, and continued to keep a respectful tone. "I got A's in those courses," Kevin said. "A's at Northridge, B's in the courses here. What difference does it make if I had the prerequisites if I got B's here? Prerequisites are supposed to keep you out of work you can't handle, but it's obvious that I *can* handle the work, because I *did*. Please, ma'am, can't you do something to help me?"

She held her head high and her look of sympathy was patently artificial. "We have to go by the rules," Ms. Rasmussen said. "There was a mistake. You should never have been admitted to the courses here without proper prerequisites. Now, officially, you have never taken those courses at all. You'll have to go meet the prerequisite requirements, then take the courses over again. I'm very sorry." She wasn't.

"But that's two years of my life!" Kevin said. He wasn't deferential now. "You can't do that to me!"

Patiently Ms. Rasmussen punched in more numbers. A blur of fine

print filled the screen. "Look," she said. "Here are the rules. You may read them for yourself—"

If I plead, Kevin thought. If I plead, I may, just may, get her to help. She wants to feel important, and I can help her. Just say the right words.

But the feeling of self-contempt was too strong. His control broke like an exploded dam. "Damn you to hell!" he shouted.

"You will not swear at me." Ms. Rasmussen stood. "Get out of here. Instantly. I will not have students shouting at me. I do not have to put up with that. If you don't leave I will call the Campus Police."

Police. He didn't want trouble with the police. Kevin stood. "I'm very sorry," he said. "I should not have lost my temper—"

"Go." Now that she was in control, Ms. Rasmussen felt much better. "Go now."

"Yes," Kevin said. He turned.

"Wait." The counselor kept him standing for a long moment. Her smile, a thin wintry smile that showed the tiniest thin line of white teeth, played at her lips. "You forgot your ID card. That's very important, you will need it. Here." She laid it on the desk, although it would have been easier to hand it to him.

Kevin took the card and left. As he went out, Ms. Rasmussen was marking the time onto still another form. The form title was "Interviews Successfully Completed."

* * *

He walked home glumly, not knowing what to do. There was a Zero-Growth Movement rally on campus, and students were shouting. An alternate technology group was arguing with the Z-G's, screaming that all technology wasn't bad, only the big industries. Another group of Social Technocrats appeared to argue for high technology owned by the people. The Campus Police stood by interestedly.

He walked in fury, not knowing whether to be angry with himself for losing his temper when he might have talked Ms. Rasmussen into doing something for him, or for not telling her exactly what he thought of her and her useless bureaucratic job; whether to be ashamed for not getting the results he wanted, or for trying when trying meant pretending respect for the Rasmussens of this world.

When he reached the top of the stairs he wasn't surprised to see the door to his room standing open. Mrs. Jeffries often brought food to the students' rooms and put it in their 'frigs. She said she cooked too much, but she did it often. Kevin went in without thinking.

The room was empty. All his books had been tumbled from the shelves onto the floor. His calculator was a heap of rubble in the center of the floor. The refrigerator door stood open, and everything that

had been in it was poured into a hideous soup over his books.

When he went into the bathroom he found Snowdrop drowned in the toilet.

III

"Dr. Farrington?"

"Yes, Kevin?"

"Can I see you for a moment, sir? I need help."

"Sure." Professor Farrington's grin was reassuring. Of all Kevin's professors, Farrington was the only one who seemed actually interested in the students. He was a bulky man, heavyset and going to fat; forty years before he'd been a football star, but he had little time for physical activities now.

His classes were interesting. He taught what was in the books but he often spoke of other things as well, of a world remade by technology and engineering, of man's future. "We're in a bad phase right now," Farrington said many times, "but that won't last. These things come in waves. Right now the social theorists are on top, and they don't trust people. It won't last. You'll all live to see a new era, an era of freedom and individual responsibilities, and I want you to be ready for it."

He waved Kevin toward his office and followed along the hall. His steps were slow; Farrington seemed always physically tired, but he

spoke with an animation that denied it. They went into the office, a large room lined with books, drafting table beneath the windows, a large read-out screen on the battered wood desk. "Have a seat," Farrington said. "Now, what can I do for you?"

Kevin showed him the computer letter and described his interview with Ms. Rasmussen. "And I can't afford two more years," he concluded. "It's just not fair."

"No, probably not. Fair play isn't the strongest point of our regulated welfare state. Rules and order, that's our goal. Let me have your ID card, I need to look up your records."

Kevin handed it over. "Two years because a computer says so. That doesn't make sense."

"Makes more than you think." Farrington inserted the ID card into a slot in the desk console. He began punching in numbers. "When you admit everyone who wants to go to college, and you're not allowed to flunk anybody out, you have to have some way to keep from getting hip-deep in idiots-with-degrees," Farrington said. "Too bad it happened to the engineering school too. I remember when this kind of horse puckey was reserved for the Sociology and Education Departments. And law schools, of course."

"But can't you do something?"

Farrington studied the read-outs. "Probably not. Used to be the professors had some authority here, but

not for a long time now. Rules are rules—"

"Not you too!"

"Easy. Doesn't do any good to get excited. Least not here, not with me. Kevin, I can understand why you young people get frustrated. If things like this had happened to me when I was your age I'd have been scheming on how to bring the whole mess down in blood. I don't suppose your generation even talks like that."

Kevin said nothing. Farrington was right. A couple of times Kevin had complained about some rule or another, tried to get a student protest together, and his classmates had thought he was crazy. The only student demonstrations to get involved in were those sponsored by one of the recognized outfits. Demonstrating for the right causes was a key to a good job after graduation. Making trouble was a way to welfare.

"I can't give you a degree by waving my hand," Farrington said. "But we can diddle the system a bit. You stay on. I'll see that you get admitted to graduate courses. You can enroll in these junk courses they want you to take again, but you won't have to go to class. Just show up on exam day. When you've touched all the bases you'll get your degree and have two years of advanced study to go with it. Get you a better job."

"It sounds good," Kevin said. "But I can't do it—"

"I wasn't through," Farrington

said. "Look, I've got some buddies out at Systems Development Corporation. I can get you on part-time as a draftsman at SDC. Get you some experience programming, feeding problems into the computer, that sort of thing. Won't pay too bad, and you'll have job experience in your resume. Ought to about make up for the time this stupid system is costing you."

"But I still can't," Kevin said. "I'd love to. What you're offering is better than—Dr. Farrington, it would be great, and I really thank you, but I can't stay in Los Angeles."

Farrington frowned. "Why not?"

Kevin told him. "I might have thought it wasn't serious, but when I found Snowdrop in the toilet—" He couldn't finish. The memory of wet fur was in his nostrils.

Farrington's lips tightened. "You know, a few years ago—I guess it was longer than that. Back about 1980. I knew a guy named Turk. Sold custom car parts. One of those damned street gangs decided Turk ought to kick in to them. Pay protection.

"The cops couldn't do anything; judges didn't believe in juvenile criminals. 'No such thing as a bad child,' all that crap. One day Turk came home and found his dog puking blood all over the carpet. Seems someone had fed it meat filled with ground glass. So Turk went hunting. He took a shotgun over to the gang headquarters and blew hell out of

the place. Then he cruised around the city looking for their cars and blew off four or five. You know, old Turk lived another two, three years, finally died of a very natural heart attack. I understand that gang still goes out to the cemetery every month to be sure Turk's still under ground."

"I couldn't do that!" There was horror in Kevin's voice.

"No, I don't reckon you could. Mind if I look up your psych records?"

"No, sir."

Farrington played with the console keys. A series of graphs came onto the screen. "Know what these mean?"

"No. They wouldn't let me take any advanced psych courses. I don't know why."

"I do," Farrington said. He pointed to a series of dips and valleys on one of the graphs. "Those little wiggles right there. Unstable. Potential for violence. You got a hot temper?"

"Sometimes. I try to control it," Kevin said.

"Yeah. You've got some other problems too. Kind of a misfit, aren't you?"

"No!" Kevin almost shouted it. "I get along!"

"Have many friends?"

"Yes—well, I don't have time to make many friends. But I get along."

"Sure," Farrington said. "But I expect you have to work on that in-

dividualist streak. I see they had you in for intensive counseling for a couple of years. Help any?"

"Sure. Sensitivity training is important, particularly for those who hope to be promoted into managerial positions—"

"You don't need to quote the goddam course prospectus to me," Farrington said. He leaned back in his big chair. "Kevin, when I was your age, an engineer built things. Took responsibilities. They'd give us a project and by God we'd get it done. Build a bridge. Design something. Start with paper and ideas and see it through until it worked. Nowadays they put you in a room full of people just like yourself, and you feed numbers into a computer. Somebody checks all your work, somebody else originated it, and a third type will supervise the hardware—do you think you'll like that?"

"No," Kevin admitted. "But what can I do?"

Farrington shrugged. "Not much. Not here, anyway."

"I mean," Kevin said, "the system's so set up that no one person can ruin things for everybody. Isn't that the way it's supposed to work?"

"Sure. How it's supposed to work." Farrington fingered the computer letter that lay on his desk, then looked back at the console. He seemed to be debating with himself. "Senecal, I'm going to tell you something that I don't want you to

repeat. You say I told you this, and I'll deny it."

"Sir? I can—I don't have to tell people everything I know."

"No, I don't expect you do," Farrington said. "Look, that computer letter was no accident. The psych people have decided you're not ready to graduate. If they hadn't found problems with your prerequisites they'd have come up with something else."

"But—why?"

"You're not mature enough. Not group-adjusted. See those little code numbers? That's the clue."

Kevin leaned over the desk and looked at the read-out screen. The numbers meant nothing to him. "I don't think those were on the print-outs I got," Kevin said. "I sent for my records. Don't they have to tell us everything in them? I thought there was a law—"

"Oh, there are laws and laws," Farrington said. "One law says that if properly qualified human-resources specialists determine that giving a subject information would be damaging to the subject, the information can be withheld. There are some others, too. I'm not even supposed to be able to get this, not even with your ID card, but—well, a couple of my old students designed the computer security system. Anyway. The Psych boys have decided you ought to stay on as a student a couple more years. Then they'll decide if your new profile is good enough to let you have a de-

gree. My guess is that it'll still be 'no,' and it won't matter if you stay on as an undergraduate until you're ninety."

"But what can I do?" Kevin demanded.

"I don't know. One of the unions might help you, but you can't join a good union without a degree. Got any pull? Political friends? Ever worked campaigns?"

"No."

"Then I can't think of anything. I wish I could help. I really do." Farrington opened his desk drawer and took out a printed brochure. "There's one thing. This outfit's looking for good general systems engineers, and they don't care about degrees. They want ability, and I think you've got signs of that. You did a good paper for me last term. I'll recommend you, if you like." He scaled the brochure across the desk.

The illustration on the front leaped out at him; space as black as night; the Milky Way a sparkling waterfall of stars. Against the backdrop hung a small rock. Men floated in the foreground. A large mirror focussed solar energy onto the asteroid, boiling out metals.

"The Daedalus Corporation," Kevin said. "That's a deep-space outfit."

Farrington nodded. "One of them. And they're hungry. Want me to talk to them for you?"

Kevin knew there were companies operating in the Asteroid Belt, but

he'd never thought of working for one of them. When he thought of going to space it was always in terms of one of the near-Earth orbiting factories, or possibly to the Hansen-MacKenzie base on the Moon. There was real money to be made in the industrial satellite factories—and you could come home to spend it.

"Nobody ever comes back from the Belt," Kevin said.

"Not many have, yet," Farrington agreed. "But maybe they don't want to come home. They're doing something real out there in the Belt, Kevin. Something important for the whole human race, and it's not done with acres of engineers sitting in bullpens. They're going to build a whole new civilization out there—and maybe save this one in the bargain. If I were your age I wouldn't hesitate a minute."

For a moment the intensity of Farrington's tone, the professor's sincerity and wistful expression, made it sound attractive. Kevin thought again. He knew almost nothing about the Belt. There were stories. That they'd found fabulously rich sources of metals, millions of tons of nearly pure iron and nickel and copper, with solar energy to run the refineries. "But they've never brought anything back," Kevin said aloud.

"No. And if they don't pretty soon things will be bad for the asteroid industries," Farrington said. "But that's just the point. They

need people out there. People who'll work—”

“How can they bring enough metal back to Earth to matter? The asteroids are a long way out.”

“There are ways,” Farrington said.

“I just don't know—”

“Yes.” Farrington sighed. “I know. You've been brought up to think somebody will take care of you. Social Security, National Health Plan, Federal Burial Insurance. Family Assistance. Food Stamps, Welfare. Union representatives to speak for you. And I'm talking about a place where it's all up to you, where you take care of yourself because nobody's going to do it for you. I guess that can be scary to modern kids. You don't like the idea, do you?”

“It's not that,” Kevin said. “But I never really thought about the Belt. It's not what I had in mind for myself—I'm sorry.”

“Nothing to be sorry about. It's an alien way of life. For you. Me, I wish I was young enough to go. Enough of that. Kevin, I'll think about your problem. Maybe we can come up with something. Now, if you'll excuse me, I've got to prepare for my next class.”

“Yes, sir. Thank you.”

“Nothing to thank me for. I wish I could have been some help. Nice seeing you. Drop in again—I mean that. Come see me again in a couple of days. Maybe I'll have thought of something.”

“Thank you. I will.” But you probably won't have thought of anything, Kevin thought as he left the office.

Alfred Farrington continued to stare at the computer read-out screen. He took out a thin black notebook and copied some of the data into it, then frowned and selected a name on a roller index attached to the input console. He pushed a button and the phone dialed itself. It rang twice.

“Yeah?” The phone showed a fat man about Farrington's age.

“Alf. How are you, Ben?”

“Fine, except for recruiting—”

“Yes. I thought I had you a good prospect, but he may not work out. Then again, he may.”

“Something special about this one?”

“Good prospect. No family ties, nobody's going to worry about him, nothing here for him to spend money on. Engineering student. And a pretty good one compared to the lot we get now.”

“Umm. The ship's leaving pretty soon. Think you can get him aboard? We're short on engineering talent. I've been thinking maybe we ought to ask Paul to send out a couple of the Order—”

“Possibly. I hope it doesn't come to that. I doubt if he'd do it,” Farrington said. “We've few enough in the Fellowship. Better to hire some talent—”

“If we can. One way or another we've got to get moving *now*, or the

whole thing's going to come apart. How good is this prospect?"

"Potentially quite good. And no family. No one will worry about where he's gone or when he's coming back."

"Good."

"Of course his motivation's all wrong," Farrington said thoughtfully.

"To hell with motivation," Ben said. "Get him aboard. We'll motivate him. And if we can't, well, we can still get some use out of him."

"Yes. Well, I'll send you his records. If you like him, let me know. There may be more pressures I can put on him. Now what about those others I sent over?"

They talked for a long time.

★ ★ ★

The new locks to Kevin's room hadn't been disturbed. The door hadn't been opened. It hadn't had to be.

Kevin's black tomcat was nailed to the door. The cat mewed pitifully. Kevin gulped hard and examined the wounds. He knew what had to be done, and after a moment he did it. Then he sat on the floor with tears streaming from his eyes.

After a while he heard steps behind him. Sergeant Mason came into the upstairs hallway.

"Your landlady called," the policeman said. "The desk man passed it on to me." He looked at

the still body nailed to the door. "You got your keys?"

"Yes—"

"Go inside. Carefully. Here, let me open that. You get back over there." Mason used the keys, stood back and kicked the door open. The room hadn't been disturbed. "I'd say it's all right," Mason said. "They don't usually do anything final after a warning like—like that. Not for a couple of days. Go get your face cleaned up, son. Go on, get."

Kevin went to the washroom. When he came back the body was gone. Sergeant Mason was sponging off the dark spots on the door.

"That's not evidence either, I suppose," Kevin said. His voice held bitterness.

"Evidence? Sure it's evidence. Of childish pranks. Cruel, of course, but deprived children often express aggression in cruelty. It's relatively harmless. We must weigh the importance of human life against that of an animal, and of course there can be only one decision—look, kid, I'm not saying what I believe, I'm just quoting."

"Children! They're no better than animals! Bad animals."

"Sure. You know that. I know it. But make the DA and the judges believe it—Look, son, the judges are picked by the lawyers, and the lawyers get paid by the government to defend these deprived kids. The lawyers all live in closed communities with rent-a-cops. So do the

newscritters. Nobody kills *their* pets. It's the way things are. You just get your degree and get out of LA, go find a good job and live in a company town with company cops around, and you can forget all this—”

The policeman's face went hard. “Look, I don't like it either. I can give you some protection, but we've only got so many police. And the Green Fence is never going to forget that you killed one of theirs. They'll remember a long time. A *long* time, Kevin.”

“But this is insane!” Kevin sat on the couch and looked at the familiar books—stained and damaged now—on all the walls. The world no longer made any sense. “You're telling me this gang is more powerful than the government!”

Mason shrugged. “Maybe. What do you want us to do? Go lean on those kids? Rig up evidence? Senecal, I've got nineteen years in. I can retire in another year. You got any idea what happens to cops who bend the rules that way? The Public Defender and the Civil Liberties Union and all the others would have my head on a platter! Sure, there's lots of us would like to get those scumbags off the streets any way we can. But we've learned better, Senecal. They got Lieutenant Mogowa for tampering with evidence and they sent him to prison. He lived about a week. Not me, son. Not me. I got a wife and three

kids—and none of 'em cops, either.”

“So you'll wait until they kill me—”

“And then maybe I can nail 'em for it. And if I do they'll be on the streets in a year. Yeah. That's the way it is, Senecal. Got any more beer?”

“Yes, but you'll have to excuse me. I've got to go make a telephone call. Maybe I can catch Dr. Farrington in his office.”

IV

Kevin had never seen so many forms and tests. There were dozens of them, and they asked him for information that no sane person would know. Finally he threw down his pencil. “This is ridiculous!” he shouted.

Three other job applicants who were still working looked up in annoyance, then went back to their tests. The test monitor, a pretty girl in short skirts, frowned. “You must complete your tests—”

“I will be damned if I will,” Kevin said. He stalked out of the room as the girl pleaded with him to go back and finish.

That blows that, Kevin thought. Damnation. I thought a deep-space-operations outfit would—

“Congratulations, Senecal. Come with me, please.” An elderly fat man barred his path. “Come on, we're running low on time,” the

man said. His voice was filled with authority.

Kevin wanted to tell him to stuff it, but he had nothing to lose. He followed the man through twisting hallways, then into an elevator. The man didn't speak until they got off at the top floor of the Santa Monica office building.

Downstairs the building had been coldly professional: new, expensive, and utterly without warmth. Up here it was completely different. The carpets were old but comfortable. Holos of space mining operations hung along the walls. People were dressed casually, and worked in small groups, or alone, and some sat in their offices with their feet on the desk and eyes directed to the ceiling. One man was making a paper airplane.

They went to the end of the hall and into an office. It too was comfortably furnished, and reminded Kevin of Professor Farrington's room.

"I'm Ben Simington," the fat man said. "Have a seat."

The chairs were comfortable.

"Want a drink? Scotch. Yes. I recommend scotch whiskey, a double."

Simington went to a wall panel, touched it, and let it swing open. An elaborate wet bar was behind it. He took out glasses carved with strange creatures and poured, then handed one to Kevin. The figure on Kevin's glass was a phoenix. "Cheers," Simington said.

Kevin lifted the glass and sipped. The whiskey was smooth, much better than any scotch he'd ever had before.

"Confused?" Simington asked.

"Yes."

"Think about it."

Kevin did. What data had he? The contrast between the lower floor of the Daedalus building, coldly professional, like hundreds of others all over the city, and the relaxed attitudes of the people on this floor—all of them obviously high-ranking executives even if they didn't act like it—was indeed confusing. This office, plain, but with very expensive carpets and pictures and electronic equipment—Kevin realized that he had, in all his life put together, never spent as much money as this office must have cost, yet the impression was of comfort and utility, not ostentation.

Then there were the tests. Medical exams, of course, then the others. The first ones had been sensible, related to systems engineering, digging deep into his knowledge. Others were obviously psychological tests, and all big companies used those. But after that—those forms, which asked for things like grandmother's age at death, great-grandfather's occupation, every address at which he had ever lived. They'd made no sense, and they got worse as he went along. Why? What would the Daedalus Corporation want with such information?

Nothing. They couldn't want it. So why ask for it?

"You expected me to give up on those tests," Kevin said.

"Let's say we hoped you would. But not too soon. Part of the test score is the time it takes for the applicants to tell us to go to hell. Quit too soon, we don't need you. Not enough motivation. Keep on after it's too obvious the things are useless, and—well, you came off pretty good."

"But—"

"Many of the chaps down there still wading through will get jobs," the fat man said. "We need paper shufflers too. But we wouldn't send them out to the Belt. I take it you do still want the job."

"Yes." Kevin's voice was unnecessarily strong. He realized that, but didn't explain.

"Why?" Ben Simington prompted.

"Because there's got to be something better than—" He didn't know how to finish. Better than here, where teenaged gangsters tortured cats and threatened people and the courts protected them. Better than a world where there were regulations upon regulations, where every detail of your working life was supervised by Federal inspectors and union officials, where you could get into trouble for working too hard, where they told you that all the regulation was the price of a stable world economy and then they couldn't protect you from street

gangsters. Better than—"Better than always having forms to fill out and people who think the forms are important," he said.

Simington nodded. "Good. We need people who want their work to make sense. But don't get the idea that it always will, Kevin. Sometimes there's things to be done whether they make sense or not. Still, you won't find too much monkey motion out where you'll be going. You'll have to take care of yourself, but you won't mind that. Wish I could go along. Drink up."

Kevin took another healthy sip of excellent whiskey. It went down smoothly and warmed him from the inside out that and the fat man's camaraderie. He liked the feeling. Kevin was intelligent enough to know it was all deliberate, that it was all planned to make him feel welcome, but he liked that too. These people wanted him, and they cared about how he felt.

They talked for an hour. The fat man looked at Kevin's test scores, his medical records, his file from UCLA. Kevin wondered how he'd gotten that, but didn't ask—and a lot of other subjects. Some didn't seem very important.

Finally Simington leaned back and looked pensively at the ceiling. "It's that time again," he said. "I have to make up my mind. Are you worth the investment?"

"I honestly don't know," Kevin said.

"Neither do I." The fat man

sighed. "You'd think I'd have thousands of volunteers," he said. "And I do, but not qualified people. The Belt's not the same as a quick tour in orbit. Don't kid yourself that it is. They're spread thin out there. A couple of thousand people, mostly on Ceres, spread across billions of cubic miles. It's no picnic, Kevin."

"No." He hadn't expected a picnic. He thought about the vast emptiness of the Belt. It wasn't a place he'd go by choice—but what choices had he? There were *plenty* of volunteers for the factories orbiting Earth, and what use would Kevin Senecal be to one of them? Officially he was neither engineer nor good millhand. He was nothing. It wouldn't be that way in the Belt, and that was something to think about.

"*Wayfarer* leaves in four days," Simington said. "Can you be in her?"

"Four days! Mr. Simington, I don't really know anything about space industries, and I can't learn in four days!"

"We don't expect you to. Trip out takes nine months. You'll learn more about space operations than you really want to know. Nothing else to do aboard ship. There'll be a reader and plenty of tapes. Ship's crew drills you in equipment, p-suits, getting around outside. You'll learn to live in low gravity or you won't live at all. I'm not worried about what you'll know when

you get to Ceres. It's whether you'll stick it out that bothers me."

"I generally finish what I start," Kevin said.

"Yep. One reason I'm talking to you is because your coach told me how you finished a game with two broken ribs. Didn't play too well, but you finished."

"That was in high school." Just how far back had Daedalus gone in checking his background? But it made sense: he was going to cost them a lot of money. "I still don't understand why you want me," Kevin said.

Simington shrugged. "Who do we send out, Kevin? Not superheroes trained for one mission; most of the astronauts came apart when their tour was over. Senior engineers? Why would they go? They're doing all right here. No, we've found our best people are misfits who don't like our modern welfare state. If they've got some other reason to get them headed for the Belt, that's fine; but it's what they do when they get there that counts." The fat man looked down at the data sheets on his desk. "Look, I don't believe in a lot of this psych garbage, but some of it's useful. In some ways I may know you better than you know yourself."

There wasn't anything Kevin could say to that.

"Contract's for five years," Simington said. "But we don't really make a lot of profit on five years. We need people who'll go

the course.'’ He went back to studying the read-outs.

Kevin suddenly wanted very badly to go. Partly it was a competitive urge. He didn’t want to be told he wasn’t good enough. But there was more, too. Out there he might find a meaningful job and a chance to do something important.

Earth was running out of metals, of oil, of coal, of everything. The anti-technology organizations had halted nuclear power development and Eco-freak rioters had smashed the space-power antenna outside Bakersfield—and investment money to build another couldn’t be found. Population was rising and food production wasn’t. There were already famines in parts of the world, and the pinch was felt everywhere, even in the United States. And the lawyers continued to gum up everything—in the courts, permit hearings, environmental impact statements.

The One Earth Society said the answer was to eliminate technology, space industries, everything that wasn’t “natural.” The costs would be terrible: millions, billions dead, but there was nothing else. Earth must abide, and she could not support a plague of mankind, an epidemic of humanity.

Kevin remembered Professor Farrington’s lecture on that. “Maybe they’re right,” Farrington had said. “Maybe. But it’s for damn sure if there’s an alternative this is the time to take it. We can get off the Earth

and live in the solar system. Not on one planet, but on nine of them, nine planets, thirty-five moons, and a million asteroids. Right now we can go. If we wait a few years, things will be so desperate down here we’ll never make it. This is the first and last opportunity for mankind to be something more than a carnivorous ape crawling on the surface of one insignificant planet.”

Kevin, remembering, nodded to himself. “I want to go,” he said. “And I can make it in four days.”

Simington said nothing for a long time. Kevin held his breath. Finally the fat man spoke. “Okay. I can offer you a starting salary of fourteen thousand Swiss francs a year. Five-year contract.”

Kevin made rapid mental calculations. About a hundred and fifty thousand US dollars a year. It wasn’t as high as he’d expected; not that high at all in these days of inflation and ultra-taxation. Engineers on Earth made more. Engineers in orbital factories made a *lot* more. But—it was more than he could get without degrees and a strong union.

“It’s more than you think,” Simington was saying. “We pay half that in francs in the Belt, the other half into your account in Zurich. We’ll set that up for you. No point in letting Uncle Sugar get his hands on your money. If you don’t have too much junk shipped out from Earth, you can save your return passage in about four years.”

“And if I don’t save?”

Simington shrugged. "Your problem. We pay your way out. If you stay ten years with us, we pay your way back in. Don't worry about it. Even if you can't cut it for us, you won't be out of a job. There's a lot more jobs than people in the Belt. You won't starve."

"I suppose not—"

"And we give you a sign-up bonus," Simington said. "Thirty-five thousand bucks. You can use that to clean up any Earth-side problems. We'll also provide you with a basic outfit."

"Sounds good," Kevin said.

"It is good. We take care of our people. Notice I haven't said anything about owing us for passage and bounty. Some outfits pay higher, but their people owe for passage out. Some never do save it back. We don't work that way."

Sure, Kevin thought. But you're out to make a profit like the others.

Profit. Most of his professors had acted as if profits were nasty. Only Farrington seemed to think differently. And Wiley Ralston, of course. Not that the professors had any control; international firms survived despite the intellectuals' contempt. The welfare state could tax US corporations practically out of existence, but they couldn't get their hands on the internationals, or the space operations firms.

"What kind of work?" Kevin asked.

Simington's grin was wide. "Everything! Mining operations, living

quarters, refinery design, ships and transport, agriculture—it all needs doing. Terrific opportunity."

If it's that great, why do you need me? Kevin wondered. But it sounded exciting, and besides, what other choice did he have? "I'll take it."

Simington nodded. "Report here, ready to leave, in two days."

* * *

They flew him down to the Baja California spaceport in a windowless transport. He crouched with his gear among empty cargo containers and tried not to think of what was coming next. There was only one other passenger, a man more than twice Kevin's age, shorter by five inches but weighing almost as much as Kevin did—built like a lineman rather than a half back. He had dark hair and brown eyes, and a fine network of thin red lines around his mouth and across the bridge of his nose. He drank heavily from a hip flask.

"Drink?" he asked.

"No, thanks."

The man shrugged. "Headed for *Wayfarer*?" When Kevin nodded the man's grin broadened. He put out his hand. "Me, too. Bill Dykes."

Kevin took the offered hand. Dykes's grip was firm. "Kevin Senecal." He waited for Dykes to comment on the name, but he didn't.

"Sure you don't want that drink? You look nervous."

"No, I'm not nervous," Kevin said. "Wish they had windows back here. I'd like to see Baja."

"Not much to see," Dykes said. "Railroads, power lines, highways, looks just like anyplace else now. Not like it was a few years ago when there wasn't but one road down here. Damndest thing. Of all the places in the world to put a spaceport, I'd have thought Baja would be the last."

The airplane engines thrummed on. Kevin was glad of someone to talk with. It took his mind off what was to come. Deep space, the Belt—but more terrifying was the way he'd get out there. "Good location," Kevin said. "Further south than Canaveral, so there's more eastward velocity. Takes less energy to get the pods in orbit. And it's on the ecliptic. Anything launched from there has an easier time of it getting to the Belt—" Kevin stopped, because he could see he was boring his companion. "Sorry. You know all this."

"Some," Dykes admitted.

"You've been up before?"

Dykes nodded. "Orbital factories. Three years in the General Motors satellite. Didn't want to join up for another hitch. Took my pay back to Earth."

"But—you must have saved a lot—"

"Sure, but the IRS got most of it." Dykes took another drink.

"And I couldn't get a dirt side job. My union's full of One Earthers. They say space technology takes jobs away from people on Earth. Sweet Lord, they fixed up an initiation fee that would've wiped me out! Tried working without a union, but you know how that is. Got beat up about as many times as I had a day's work."

Dykes didn't seem broken up about his problems. He smiled cheerfully and took another drink, a long one this time. "So I took what was left of my savings and headed for the Moon."

"Oh." The Moon might be a good place to work. "Hansen colony?" Kevin asked.

"Naw, couldn't get on there. If MacKenzie and Hansen had been hiring, I'd probably still be up. No mickey mouse crap with Hansen, they tell me. Just hard work. Naw, I tried a little prospecting, a little mining. Luna's no good. Regulations, bureaucrats, lawyers, taxes —hell, it's no different from Earth. No chance to get anywhere."

"So you're going to the Belt?"

"Sure. So're you. What in hell are you so nervous about?"

Kevin laughed. "Didn't know it showed *that* much. I—have you been up in a laser pod before?"

"Yeah. Four times. Lived through all but the second one."

"Huh?"

"That one killed me." Dykes held his serious expression for a moment, then grinned. "Look,

there's nothing to worry about."

"Sure," Kevin said. "Sure. Say, if you don't mind, I'll have a drink after all."

* * *

The plane set down in morning tropical heat. There was no wind. The airfield was located near the launching facility, but a large concrete terminal building blocked their view of the laser field beyond. They watched their baggage loaded onto a cart, then went into the terminal.

There were few formalities. Kevin showed his ticket and was checked off a list. "First time up?" the clerk asked. When Kevin admitted it, he was sent down a long stairway.

"See you," Dykes called.

The passage led to a waiting room. There were a dozen other people there, mostly men older than he was, but a few women, and one family with two children. There was also a remarkably pretty girl. Kevin tentatively smiled at her, but she didn't respond, so he took out a book and began reading.

Presently a man in white coveralls came in and waited for their attention. He didn't say anything, just stood there until they were all looking at him. He looked at the two children and shuddered.

"Anybody here can't follow instructions? I mean follow 'em to the letter?" he asked. "If so, speak up and save the Company some money.

Save your lives, for that matter. You can get killed doing something stupid."

There was still no response. He shrugged. "I'm Hal Winstein, and I'm supposed to tell you ground-hogs how to get from here to the orbit station alive. After that you're somebody else's worry."

"You all have pressure suits and helmets that fit? You should have turned them in for inspection. Everybody do that?"

There were murmurs, but no one said anything.

"Okay. Next. Anybody seriously suffer from claustrophobia? Course not, you wouldn't be here, but I'm supposed to ask. Now here's the drill. You'll go get your suits on and get checked out. Check-out includes vacuum test to be *sure* your equipment works. When the techs are happy with your gear, you'll go to the loading area and climb into a capsule.

"The capsules hold two hundred kilos each. That's approximately two people and their gear. We strap you in the webbing and you'll be there a while. Eventually the capsules move to the launch area, you'll hear a warning, and off you'll go at three gravities.

"Three gees isn't all that much if you're lying flat in the webbing. It goes on for a lot longer than you think it will, so don't get worried. When it stops you'll be in orbit. No weight."

"Free fall," Kevin muttered. He

wondered how he'd feel. People often got sick in space.

"That's the only tricky part," Winstein said. "You'll feel like you're falling forever. Don't panic and don't unstrap. Capsules with kids aboard will be taken into the orbiter airlock and opened there. The rest of you'll have to get to the orbiter through vacuum. There's only two important things to remember: do exactly what the crewman who comes for you says you should do, and never get completely unfastened. You'll have two safety lines. Be sure one is attached to something before you unclip the other. The crew will get you into the airlock if you cooperate. If you don't, you could get very dead. Understood?"

"I think I will walk," the family man said. The others didn't laugh.

"Don't want to scare you," Winstein said. "But you do want to take this serious. Any questions?"

There weren't many. Everyone there was a potential colonist or would work in one of the satellite factories. Laser launching was a lot cheaper than tickets on the shuttle, but the Hansen Company didn't particularly encourage passenger traffic on the laser system: they made bigger profits on freight. Finally Kevin raised his hand.

"Yeah?" Winstein said.

"Can we watch the launches? I've never seen one."

Winstein looked at his watch. "If you get through suit check fast, you

can watch cargo go up for a few minutes. Then you'll have to get below and load on. Okay, through this door to the changing rooms. Find your own gear and get it on."

"What do we do with our clothes?" one man asked.

Winstein shrugged. "Carry 'em along if you don't go over the mass marked on your ticket. Or ship 'em to somebody. Or leave 'em here and we'll give 'em to local charities. Suit yourself. By the way—I don't advise anybody to fudge on total weight. You wouldn't really want us to think you mass less than you do. And we can't afford to lose the capsules."

V

There was very little privacy in the changing room. Only a long screen separated men from women. The only facilities were a long bench and table on either side of the screen.

Kevin collected his pressure suit from the Hansen Company inspector who'd checked it out. "Nice gear," the technician said as he handed it over. "David Clarke makes the best, in my book."

One more datum to file away, Kevin thought. Daedalus Corporation didn't stint on equipment. They'd given him the best. He had his suit, and helmet, with radios and tool belts; a programmable pocket computer, the latest model he knew

of, complete with a plug-in memory-reference unit that contained, along with much other data, just about every formula and table in the big Chemical Rubber Handbook; a lightweight Fiberglas suitcase, really more like a pressure-tight portable footlocker. It was all first class and it made him feel that he was important to the company.

The pressure suit went on like a diver's wet suit, and looked like one only not so thick. It fit very closely; he had to use talcum powder to get into it. Gloves dogged onto the ends of the sleeves, and a seal set firmly around his neck. He slipped into the boots, hung the small equipment bag over his shoulder, and reported back to the technicians.

They pulled and pinched, looking for loose spots. They didn't find any in Kevin's, but the next to come up was the girl he'd seen before, and after a moment they handed her a lump of what looked like clay. "Shove that under your breasts," the technician said. "Yeah, right there. Don't leave any gaps."

"But—" She was obviously embarrassed.

"Lady, you're going into vacuum," the man explained. "Your innards will be pressured to about seven pounds by the air in your helmet. Outside is nothing. Your skin won't hold that. The suit will, but you've got to be flat against the suit, otherwise you'll swell up to fill any empty spaces. It won't do a lot of good for your figure."

"Oh. Thank you," she said. She turned away and used the clay as she'd been told.

The technician looked at Kevin and shook his head. "Don't get many small-town chicks here. Okay, sport, on with your helmet. See it's dogged right. Don't like to lose passengers in the test chamber."

The helmet fit snugly onto the neck seal. The technician checked the locking mechanism and seemed satisfied. "Okay, you and blondie there, into the next room and through the airlock." He raised his voice. "Sending in the first two, Charlie."

"Right. Come on, come on, we got a full schedule today."

Kevin and the girl went through the door and were motioned to another, this one steel with a large locking wheel. Through that was a large chamber. There was a man in a pressure suit inside it. He motioned to hoses on the bulkhead. "Connect up to those."

They did, and the man checked the fittings. "Okay," he said. "We'll pump out this chamber. As we do, there'll come pressure into your helmets through those hoses. When the outside pressure's gone, you're going to be uncomfortable for a while. Any gas in your system will expand until you'll feel like a balloon. Don't be too damned polite to get rid of it, or you'll be sorry. If you feel really uncomfortable, or your ears hurt real bad, or you can't breathe, hit one of those panic but-

tons next to you there. Otherwise, don't do anything at all. Understood?"

"Yes," the girl said. Kevin nodded.

"Right." Charlie turned to his control panel and pressed buttons. The outside door had already been closed and sealed while he was talking.

Kevin felt the pressure drop. His ears clogged for a moment and he swallowed frantically until they popped and were clear. The pressure continued to fall and he felt his insides swelling as Charlie had said they would.

"OKAY." Charlie's voice was loud in his headset. "I've got your pressures here. Everything looks right to me. Any problems?"

"No," the girl's voice said.

"Good. Now comes the hard part. The worst thing that can happen to you is to run low on oxygen. You won't know it's happening. So, I'm gonna cut down on your oxygen supply to let you get used to what anoxia feels like. While I'm doing it I want you to write your name on that pad there in front of you. Every time I say 'write,' you write your name until I say to stop. Okay?"

"Yes," the girl's voice said in his headset.

"Sure," Kevin said.

"You, mister, I asked if it was understood," Charlie said.

"Oh." Kevin turned on his microphone. "Sorry. Understood."

"Okay. Here we go. Write."

It was no problem. He wrote carefully, then glanced over at the girl. 'Ellen MacMillan.' Her handwriting was neat and precise, unlike his own heavy scrawl.

"Write," Charlie said, and they did it again.

It seemed a silly game. Kevin felt an urgent impulse to laugh. Why? part of his mind wondered. But it didn't matter, of course he wanted to laugh, this was silly—

"Write."

His hand didn't work properly, but it was all right, he was tired of this silly game. He glanced over at Ellen's paper. Her neat hand had written 'Coca-cola.'

'Scotch and soda,' Kevin wrote.

"Write."

'Will you have dinner with me?' he tried to write, but it didn't come out that way. He couldn't read it. Oh, well. Ellen looked at him and giggled. He responded, and they laughed together.

"Hey, you're beautiful," Kevin shouted.

She laughed harder. Why was she laughing? Kevin wondered. It was true enough. Well, maybe not beautiful. But she was nice, a really pretty girl, blonde curls cut off short but still long enough to curl. He stared at her pressure suit, trying to see where her breasts left off and the clay began. She saw what he was doing and patted the spot, giggling again.

"Write your names. It is very important that you write your

names. If you do not write your names legibly you will not be permitted to go up today," Charlie said. His voice was very stern, and that was funny too.

Only, part of his mind said, it wasn't funny. He tried very hard, but all he could produce was a scrawl. Ought to be good enough, though, he thought. They can read that—

His head began to clear suddenly, and he looked at the paper in front of him. It was awful. He wanted to cry—

He felt the chamber pressure rising. It became very warm in the capsule.

"Okay," Charlie said. "When I give the signal, disconnect from the hoses and go out the far door. Take those papers with you, and don't forget what you've learned. Anoxia sneaks up on you. You think you're doing all right, even when you're acting like a stupid drunk. If you remember that, you can function longer. Not a lot longer, but a little longer anyway."

* * *

The next stop was another supply counter, where he picked up his reflective coveralls and tool belt. When he put them on over his pressure suit, and slung the tool belt around his waist, Kevin felt like a spacer. He knew better. There was a lot to learn, and he wouldn't even get started learning it until he was

aboard *Wayfarer*; but the tool kit and professional equipment was at least a start. He asked directions to the observation balcony and was shown a stairway.

The balcony was empty. It gave a view of the wide valley on the other side of the terminal building from the airfield. The upper parts of the valley sides were covered with the tall *cardones* cactus plants, giants twenty feet tall and more, looking like cartoons of the desert cactus. There were even vultures perched in the cactus. Below, on the valley floor, were the lasers.

At first it looked like a field of mirrors. Over a hundred lasers were scattered across the brown Baja desert sand. Each sent its output into a mirror. The mirrors were all arranged so that they reflected onto one very large mirror nearly a kilometer beyond the balcony.

A rail track ran onto a platform above the final mirror. Squat capsules, like enormously swollen artillery shells, sat on cars on the track, a long line of them waiting for launch. As he watched, one of the capsules was wheeled along the track until it stopped over the launching mirror.

The field became a blaze of blue-green light as the lasers went on. Somewhere nearby, Kevin knew, were two large nuclear power plants. They poured their entire output into the lasers below him, enough electricity to power a city, all turned into laser light. The mir-

rors pivoted slightly so that all their energy went to the one large mirror at the end of the field.

The capsule rose, suddenly and silently, as if pushed into the sky by a rapidly growing giant blue-green beanstalk. It vanished in seconds, but the laser beam continued to follow it, moving from vertical to an angle toward the east. Finally all the lasers went out together.

"My God," Kevin said aloud. "I'm going up like *that*?"

He heard a laugh behind him and turned quickly to see the girl who'd been in the altitude chamber with him. She smiled as he looked at her. "Yes, we are," she said. "Scared?"

"Damn betcha."

"Me too. I wish I'd taken the shuttle."

Another capsule was in position, and rose silently from the platform, vanishing into the clear blue sky, followed by the silent beam of intense light. If he listened carefully Kevin thought he could hear the hum of the beam. It was pulsed at something like two hundred times a second.

The laser system worked like a ram jet. Under each capsule was a bell-shaped chamber, open at the bottom. The laser energy entered the chamber and heated the air inside. The air rushed out, pushing the capsule upward. Then the beam was turned off just long enough for more air to get into the chamber, to be heated by the next pulse of the beam.

"I'm still not sure I believe it works," Kevin said. "It looks like black magic."

"Green magic," Ellen said.

There was a long pause in the launching sequence, then a train-load of capsules came out. Each capsule was accompanied by an armed guard. Four Mexican Army tanks rolled alongside the train.

"Ye gods, that must be a valuable cargo," Kevin said. He looked quickly at Ellen when she didn't answer. She was watching them with a look of satisfaction. "Do you know what's in them?" Kevin asked.

"No, do you?"

"I thought you were watching as if you did. No, I haven't a clue."

"As you said, it must be valuable." She continued to stare until all the capsules were launched, and the guards and tanks rolled away. Then she looked at her watch. "Maybe we ought to be getting down—"

"Yes. Hate to miss the ship. Where are you headed?"

"*Wayfarer. Das Wanderer.*"

Kevin had thought she would be going up to one of the orbital factories. "All the way to Ceres? Alone?"

"Yes, why not?"

Kevin shrugged. "No reason."

"Except that you don't approve of women going to the Belt," she said. "That's man's work. I suppose you want restrictive laws for

space, too. ‘One job per family’ out in the Belt as well as here on Earth.” There was anger in her voice. “Well, you had that in the United States, still do really, but you won’t get it in space, and I’m going whether you approve or not.” She turned and stalked down the stairwell.

“Hey,” Kevin called. “Hey, I didn’t mean anything. I’m sorry—”

She didn’t turn. To hell with her, Kevin thought. He slowed down, wondering what to do next.

“Kev! Hey, buddy,” someone called.

Kevin turned. It was Wiley Ralston. “Wiley! Hey, are you going up this round?” Wiley had left Los Angeles two weeks before to find a job in deep space. Kevin wasn’t that surprised to see him.

“Sure, I’m in the afternoon wave. Ride up with me?”

“Can’t,” Kevin said. “I’m going right now—hey, where are you going?”

“Got some things to arrange,” Wiley said.

“You going in *Wayfarer*?”

“Right—you too?” Wiley was hurrying away, and his manner indicated that he didn’t want to be followed. “You’re going up right now? Not in the first capsule, though—”

“Sure, get it over with,” Kevin said. He had to shout now; Wiley was moving away fast.

“Not the first,” Wiley said. “Get on the last one—”

“Why?”

“Can’t stop to talk, old chum. I’ve really got to scoot. See you aboard *Wayfarer*.” He vanished into a door marked AUTHORIZED PERSONNEL ONLY, leaving Kevin standing in the middle of the empty corridor.

Damn, Kevin thought. He walked slowly to the capsule loading area. If I wait, he thought, I’ll be scared out of my wits before it happens. He knew the laser launching system was safe, but that didn’t stop the butterflies in his stomach.

May as well get it over with, he thought. He collected his helmet from the technicians.

There was one couple, and Ellen MacMillan, in the loading area.

“Who’s first?” the technician asked.

“We are,” the couple said.

“Right. Let’s see you get into your hats and seal up.” When they had their helmets dogged down the technician attached a pressure gauge to the man, looked worried, and said, “Go back and get a recheck on this.”

“Something wrong?”

“Probably not, but I like to be careful. Okay, you’re downchecked. Next.” He jerked a thumb at Kevin, then at Ellen MacMillan. “You two. Get your heads on and let’s hook up air bottles. Come on, we haven’t got all day. Orbits don’t wait.”

When they had donned helmets and air tanks the technician checked

his gauges again. "Looks good," he said, and sent them through a door. Kevin hurried along, trying not to think of the ride ahead. No worse than a roller coaster, he kept telling himself.

The launching pods were waiting. They seemed much larger than the ones he'd seen being launched, but even so the capsule was too small. It looked like a bell-shaped steel coffin. Ellen was already inside, strapping herself into a nylon-webbing couch. Kevin got in and lay on the other couch.

"Hear me all right?" a voice asked.

"Yes." They both answered at once, speaking a little too loudly, a little too confidently. Kevin turned toward Ellen to see that she was looking at him. They grinned faintly at each other.

"Fine. Now you wait a while," the tech's voice said. "Then you go. There's nothing tricky about any of this. You're hooked into the capsule air supply. When you make orbit you wait until a crewman comes and opens the can. Then—and not before—you pull that big lever above you. It disconnects you from the capsule system and you'll be on your own air tanks. You got two hours of air in the capsule and another hour in your tanks. Okay, I'm closin' you in. Bon voyage."

The capsule door closed. They watched the inside wheel turn as it was dogged shut. It already seemed close and cramped in the pod. Like

a big steel coffin built for two, Kevin thought. He pushed the thought aside.

"We're moving," Ellen said.

There wasn't much sense of motion, but she was right. The capsule was moving along the track. Kevin tried to visualize its progress as it went inexorably toward the launch area. "Wonder how the kids will make out?"

"Better than us, I expect. At least we don't have to do anything—"

"I wish we did," Kevin said. "Better than just waiting for them."

"Sure—"

The warning tones sounded, then gravity seized them. They were pressed hard into the seat webbing.

Three gravities isn't all that bad; a little like being on a water bed with another mattress on top of you and two people piled onto that. It was possible to breathe, but not to talk. The acceleration went on and on.

I'm really going, Kevin thought. I've left Earth, and I won't be back for a long time.

* * *

Eventually the weight diminished, then was gone entirely. There was a sensation of falling, endless falling.

"I wonder if we made it," Ellen said. Her voice was artificially calm.

"Well, this is free fall—"

"Which we would feel whether or not we have enough velocity to



make orbit," Ellen said. "And we won't know for about half an hour."

"By then the crew people will be here." I hope, Kevin thought.

There was nothing to do. There ought to be some kind of instrument to tell them they were in orbit. Kevin thought about that. How could you design one? No air, of course; couldn't measure velocity by air speed. An accelerometer hooked into the capsule; add up all the accelerations and you'd have velocity. A micro-computer to decide whether that was the proper velocity for the job. Sure, it could be done. Why hadn't they done it? Another expense for an already expensive business.

"I'd think someone would have spoken to us by now," Ellen said. She moved her arm up so that she could see her watch. "Only five minutes. Seems longer."

"Sure does. Uh—by the way, my name is Kevin."

"I know. I saw it on your paper. In the chamber. You read mine, too. We were pretty silly, weren't we?"

"Yeah. What outfit are you with?"

"None. I'm paying my own way," she said.

Good Lord. She had to be fabulously wealthy. He looked at her suit and other gear. First class, but no frills.

"How come you're taking the hard way up instead of the shuttle?"

"I couldn't afford a shuttle ticket."

That didn't make sense. "But you can afford a ticket to Ceres. Why are you going there?"

"It seemed like a good idea at the time," she said. Then she giggled. "I'm not too bad at engineering, Kevin, even if you don't approve of women in your business—"

"I never said—"

"And I didn't like the offers I got from the orbital factories. Or the Luna companies either. So I took what I could scrape up and bought a ticket. There wasn't much to spare."

"Out to make your fortune pioneering," Kevin said.

"That's right. There'll be good jobs for me. For anyone who can do the work. I see you don't approve."

"Sure I approve. It just seems like a long way to go—"

"You're going," she pointed out. "Why can't I?"

Kevin didn't answer. It just didn't seem right. And you're a male chauvinist pig, he told himself. You hate to see a pretty girl working at something besides being a pretty girl.

Only that's not true. Dammit it's going to be rough out there, and—

And, he thought, I've got about three million years of evolution that says women and children shouldn't get into tough situations. The world is no longer a place where we live in caves and go hunt tigers, and our instincts are all fouled up, but we've

got them.

Of course it was pretty rough for unmarried women in the United States anyway. The feminist movement had gotten legal equality for women—for a while. But then came the Equity scandals, and the Great Recession, and rising unemployment.

The unions put on the pressure, and Congress came up with the 'One Job Per Family' law. The courts threw it out, but Congress passed it again, and its status was still undecided. And women weren't welcome in most unions whatever the courts said, not with so many men out of work.

And maybe, Kevin thought, maybe the whole idea is wrong, but there are plenty of women—married women—who approve the job restrictions and reserved occupations.

"It seemed a long time from when they launched the cargo to when they sent us up," Kevin said. "How can both batches get to the same satellite?"

"They can't. The cargo went directly to *Wayfarer*. We go to the orbital station," Ellen said. She frowned. "I make it twenty minutes since we were launched. Doesn't that seem like an excessively long time? We ought to have heard from someone."

"It does seem a while. Let's try calling out." He reached up to the radio panel above. There was a small card of instruction attached on its face. The first said, "FOR

EMERGENCY USE ONLY" in five languages. "Is this an emergency?"

Ellen looked thoughtful. "I don't know—I'd hate to cause trouble, but I am getting a bit worried."

"Me too. To hell with them." He switched on the radio. Then he cursed. "There's no pilot light," he said. "Burned out—or does the set work?" There was only one way to find out. There was a jack on the face of the panel, and he plugged his mike into it. "Hey out there—anybody listening? This is Capsule—uh—nine-eight-four, hopefully in orbit. Anyone? Over."

"There isn't even static," Ellen said. "The receiver's not working. I doubt if the transmitter is working either."

Kevin looked at her with curiosity. She didn't seem scared. Or surprised, either. "What do we do?"

"You can try the transmitter again."

"Sure. Mayday. Mayday. This is Capsule nine-eight-four, Mayday, Mayday. Over." Again he heard nothing. How long would it take for one of the crewmen to get to them, if the transmitter worked but the receiver didn't? "Mayday, Mayday, Mayday. This is Capsule nine-eight-four. Our receiver is not working. We cannot hear your reply. Please come help us. Mayday."

Ellen began unfastening her seat straps. Kevin watched with a frown. They'd been told not to do that. Of course they'd also been told some-

one would come get them. He felt a knot of fear in his stomach. Trapped in an orbiting steel coffin. The sensation of falling was overwhelming now. In a moment he'd panic if he couldn't do something constructive. But what? "MAYDAY. MAYDAY. SOMEBODY COME HELP US!"

"I don't think that's going to do much good," Ellen said. She inspected the emergency set. "I don't see anything obviously wrong. Should we take the cover off and look?"

Kevin doubted that would be any use. Integrated circuit chips all look alike; how could you tell if something was wrong with one of them? He began unfastening his own straps. When they were loose, he floated away from the acceleration couch. It was a strange sensation. He'd seen people in free fall on TV often enough, and had looked forward to experiencing it, to being able to swim in the air, but now all he wanted was to get back to having weight again.

"We have suit radios," Ellen said. "Is yours powered?"

"Yes. Fresh batteries, and it was checked out yesterday—Hey! If we get outside this thing, we might be able to raise somebody with it."

"We'll have to disconnect from the capsule air supply before we can open the hatch," Ellen said. "If the hatch will open at all—"

"Why shouldn't it?"

She shrugged. The motion set her twisting slightly, and she caromed

into him in the confined space. They both grabbed handholds.

"We have to do something," Kevin said. "Let's open the hatch." He reached for the big emergency disconnect handle.

"Wait. Fasten your safety line to something."

"Oh. Right." He clipped the line to one of the couch pipeframes. "Ready?"

"As I'll ever be. Go ahead."

He turned the red handle. It didn't turn; he did. Kevin cursed and got his feet planted against the couch, braced, and turned the handle again. It moved, slowly at first, then swung over. The ship's air hoses popped loose from their connections on their backpacks. They were now living on their air tanks.

"There's still pressure in here," Ellen said.

"Damn." She was right. The emergency disconnect was supposed to vent all the air from the capsule. The capsule hatch wouldn't open until the air was gone. There'd be no point in pulling on it; at seven pounds a square inch, hundreds of tons of air pressure held that hatch closed.

They couldn't open the hatch, and then had less than an hour of air.

VI

"I never thought they'd do it this way," Ellen said.

"Huh? Who'd do what this way?" Kevin asked.

"Nothing. We've got to bleed the pressure out of this capsule. Try to find the relief valve." She began searching her side of the capsule.

"This looks like it," Kevin said. There was a valve with a large handle. Remembering what happened the last time he'd tried to turn something in free fall, he braced himself before he twisted the handle.

It spun without effort. The handle wasn't splined to the valve stem. "Jesus Christ," he muttered. Ellen pulled herself over to watch as he futilely turned the handle. "No go," he announced. He was surprised at how calm he sounded.

"Your tool kit," Ellen said. "What's in it?"

Kevin didn't really know. He'd taken some of the items out to look them over, but that was something else he was supposed to learn about on the way out to the Belt, and there'd been so little time to prepare. He took the leather tool pack off his belt and opened it.

"There's a power head," he said. "I remember that. And drill bits. But is it enough to get through the capsule walls?"

"You won't know until you try," Ellen said.

He took out the power head and inspected it. Then he searched through the loops of the tool pack until he found the drill chuck. It wasn't obvious how that attached to

the power unit, but he worked carefully to be sure he didn't bend or break anything, and eventually it snapped into place. He pulled the trigger experimentally. The whine of the motor was delightful music.

"Now for the bit. About six millimeters? Looks about right." He squinted in the dim capsule light, trying to read the tiny words on the shank of the bit. He couldn't make them out. He hoped all the bits were intended for drilling metal. At least they were sharp and new.

He put the bit in the chuck and tightened it, then looked for a place to drill, choosing a spot between two braces. "I wonder how thick these things are."

"No thicker than they have to be," Ellen said.

"True." The less structural weight, the more payload. "Here goes." He pressed the bit against the metal surface and turned on the drill. It whirred reassuringly, and the bit threw up tiny bright chips that floated in the compartment, dancing about when stirred by air currents kicked up by Kevin's movements.

"It's working," Ellen said. For the first time there was excitement in her voice. "It really is."

He continued to drill, trying not to think about why he was drilling and where he was. That was no good, so he tried to think about something else. Why was Ellen so calm? And why hadn't she been surprised?

The bit seemed to have gone awfully deep. Wouldn't it ever get through? But, even as he wondered, it jerked and pushed all the way to the chuck. Air whistled out past it. Kevin reversed the drill and withdrew it.

"Might take a long time to empty the capsule through that hole," Kevin said. "I'll do another hole, this time with a larger bit."

The second hole seemed to go easier. Now they could definitely feel the pressure dropping. He felt the familiar push of the neck seal as his air tanks pressurized his helmet in compensation. Then he glanced at his watch.

Fifteen minutes. They'd used a quarter of their air time in drilling the holes, and there was nothing they could do but wait.

"I have it," Ellen said. She turned the steel dogging wheel on the hatch. It seemed to turn easily, and the hatch opened inward.

Sunlight poured into the capsule. Kevin wondered how long that would last. They had to be in orbit, a very low orbit at that; it wouldn't be long before they were on Earth's night side. After making sure his safety line was still attached he slipped the pawl on the reel and worked his way out of the capsule. The sight was so glorious that for a moment he didn't move.

Earth was below, an enormous

disc shrouded in wispy white clouds. They were above the Atlantic, and could see islands, and far at the horizon the west coast of Africa. It looked rather like an enormous circular map—they weren't high enough to see Earth as a sphere.

All around him—there was no "above" or "below"—there were capsules very close by. In the distance he saw what seemed to be a much larger structure that looked like a floating junk pile, without shape or form: a series of wheels and cylinders and shapes of no description at all held together by girders and cables. It had bright flashing lights. Kevin estimated it at about a mile away, although he found it was very hard to judge either its size or distance.

One of the channels of his suit radio was marked in red letters, for emergencies. Kevin turned to it, tongued the mike. "Mayday. Mayday, Mayday, this is Capsule—dammit!"

Ellen came beside him and put her helmet next to his. "Nine-eight-four."

"Mayday. This is Capsule nine-eight-four. Mayday! Dammit, where are you?"

"Maybe they aren't listening," Ellen said.

Her voice was the only thing he heard in his phones, and given that she was right next to him it didn't sound very loud at all; Kevin wondered if the batteries in his set were getting weak. But they couldn't be!

They were new, the whole rig was new.

"Kevin, look! This is the only personnel capsule in this area. The others are all cargo."

She was right. There were plenty of capsules around, some only a few yards away, but the others were stubbier than theirs, and in contrast to the red-white checkerboard pattern on their own pod, these were yellow. Somehow they'd been launched into the cargo-pod recovery area. "Where are the others who came up with us?" Kevin demanded.

"Probably on the other side of the base station," Ellen said.

"Where the crewmen are. No one will come over here until they have all the other passengers inside."

"But they damned well ought to know they're one pod and two people short," Kevin said angrily. "Now what? Mayday, dammit." They were conversing on the emergency channel. They shouldn't be doing that. Kevin laughed.

"What?"

"Hoping some communications monitor overhears us and comes out to slap us with a violation ticket." The joke seemed a little flat. He glanced at his watch. A little over half an hour of air. This was absurd! They were no more than a mile from the station—well, maybe two, Kevin thought; distances were hard to judge—and there wasn't any way they could get over there. Neither of them had a reaction pistol

or a backpack jet. You can't swim in space: no air—nothing to push against! Kevin thought, sternly repressing an impulse to laugh hysterically. So what do we do? Have to do something!

"There are a lot of those capsules around here," Ellen said. "They seem to get pretty close to the station—"

Yes! Certainly they could get closer to the station. The nearest capsule in the right direction wasn't more than fifty meters off, possibly closer. It should be easy to jump that in free fall.

But if they missed, they'd drift forever.

He looked down at the reel on his safety line. Ninety meters. More than enough. "Look," he said "I'm going to stay hooked on here and jump for that other capsule. If I hit, connect yourself to my line and I'll pull you over. Then we'll see about going on to the next one." He released the brake on his safety line reel.

She looked thoughtful for a moment, then nodded. "All right."

Kevin braced himself for the jump. No danger, not really. If he missed, she could pull him back. He crouched, got a hand-hold on the edge of the capsule hatch so he could get strain in his legs, and jumped.

He tumbled. Stars whirled above him, then Earth, the base station, Ellen, then more stars. He must have pushed harder with one leg

than the other. He twisted to get a look at where he was going. The capsule he'd jumped for was a lot closer, moving up fast. He twisted again, instinctively spreading his arms and legs as wide as possible to slow his rotation.

His hand just brushed the capsule. He grabbed frantically and got hold of something. It almost yanked his arm off.

Have to remember that, he told himself: jump as hard as you can and you'll hit with the same force. "Okay, I'm aboard," he said. He clipped the other safety line to the protruding ring on the capsule. "Unsnap my other line and hang on—I'll pull you over."

"Right," she said. "Okay, I'm ready."

Kevin pulled gently. The temptation was to keep on pulling, but that wouldn't do: she'd just build up speed until she was moving too fast, maybe fast enough to get hurt. He let the line wind back onto its reel.

She turned just before she reached him and landed exactly feet first. She seemed pleased with herself. "Daddy made me study gymnastics," she said. "Always hated it, but now I'm glad I practiced."

"Yeah." Kevin pointed to another capsule, this one only twenty-five meters from their present position. "That one's a piece of cake. Here I go." He jumped, this time on center, and checked himself against his new perch.

It took time, but they were able

to continue the process until they were only five hundred meters or so from the base. Then they ran out of capsules. Kevin prepared himself mentally for that final leap, one that he knew all too well would probably send him past the station, falling forever. . . . Better do it *now*—or he might not be able to do it at all. But wait—the station seemed enormous now; it had been farther away than he'd thought. He remembered that suit radios were deliberately under powered so they wouldn't carry too far; otherwise all of space would be filled with chatter. But the emergency frequency? And they were a lot closer than the last time he'd tried. "Hell, it's worth a try. Mayday. *Mayday*, dammit!"

"Hello Mayday, identify yourself."

"By God!" he shouted. "We made it. Hello. We were passengers aboard capsule nine-eight-four. Air supply is going fast. We're on the leading side of the station, among the cargo capsules. Don't know which one. We abandoned the personnel pod and started hopping from cargo-pod to cargo-pod, trying to get to the base. I'd say we're about half a kilometer out."

"Nine-eight-four, can you make a light?" the voice asked. "I'll have a scooter out there in a moment. If you can show a light it will be easier to find you."

Kevin waved his flash. Down below he could see the sunset line

stretching across East Africa. "Better hurry," he said. "We have about ten minutes of air left."

"No sweat. Be with you shortly."

"But how did it happen?" Kevin demanded.

The crewman shrugged. "I really don't know. There must have been a monumental foul-up down at ground control. Never happened before."

Foul-up at ground control. Sure, he thought. But why wasn't the capsule radio working? Or the emergency disconnect? Or even the manual pressure-bleed? It seemed like a lot of coincidences. It seemed like somebody was trying to kill him.

But that, he was sure, was silly. He couldn't think of anyone else who'd give a damn if he lived or died—and the Green Fence gang sure as hell couldn't reach out into space.

"I would appreciate it if you'd look into it," Ellen said. She seemed very calm. A lot calmer than Kevin was.

"Sure," the crewman said. "Luckily, no harm done. We've just time to send someone out for your gear and get you aboard the scooter for *Wayfarer*. Come this way, please."

"But—"

"Kevin," Ellen said. "If we raise a fuss they'll have to investi-

gate. We'll have to stay here. And *Wayfarer* won't wait. I didn't spend ten thousand francs for a ticket just to miss the ship."

"All right." He let the crewman lead him through the base. They were both being damned nonchalant about something that had almost killed them. Maybe this was the way it's done in space, he thought. It doesn't take much to kill you out here so nobody's impressed with close calls.

The crewman stayed to the outer rim. The station rotated to give artificial gravity, about forty percent of Earth's. Kevin was surprised to find that it was hard to tell just how much gravity he felt. After that time in no-weight, any gravity felt good.

The deck curved up in front and behind them, but it always felt level. It was a strange experience to be walking on a curve. The walls of the station seemed to be made of some kind of rubberized cloth with a metallic thread in it. They didn't feel hard to the touch, not like steel.

They went through several airlocks and came finally to one that led outside. The crewman unsnapped four new air bottles from a rack. Kevin started to put his two into his backpack.

"Suggestion," the crewman said.

"Yes?"

He pointed to an air gauge on the rack of bottles. "It's a good idea always to check and see if they're full." He reached into his own belt pouch and came up with a gauge.

"Me, I don't even trust the airmaster's gauge. Use my own."

Kevin found one in his tool kit. Just for luck he checked one bottle with all three gauges, his own, the airmaster's and the crewman's. He got the same reading each time. Ellen followed his example.

"Now you're thinking. Okay, close up helmets and into the airlock."

* * *

The "scooter" was no more than an open framework with a long line of saddles and a rudimentary control system at its front. The passengers sat astride fuel tanks, and baggage was strapped underneath. The other passengers for *Wayfarer* were already aboard. Somebody waved at Kevin, and he recognized Bill Dykes. Ellen and Kevin got the last seats aft, the only two left. They strapped in, and about then a smaller scooter came up with the baggage from their capsule. It was lashed aboard, and the pilot hit the throttles.

The motion was very gentle, hardly any acceleration at all. The view was marvelous. There was Earth below, night with brilliant points and squares of city lights. Everywhere else were stars, countless stars, endless stars, an endless fall of stars in the Milky Way, brilliant stars, with bright colors.

They moved through a clutter of space-launch capsules and crewmen

with lights unloading them. Kevin looked at his watch. Ellen, behind him, noticed the gesture. By now they would have both been dead. She nodded at him then pointed to a channel on her radio. Kevin switched to it and turned on his set.

"I've never been up before," she said. "It's beautiful, isn't it?"

"Yes." They were coming to the daylight line on Earth below. It ran through the Pacific. Behind them were the bright spots that were cities crowded with their millions of people. Ahead and below was blue water, fleecy clouds and a distant line that might have been more clouds, or maybe California. To the north was a tight spiral of clouds.

"Typhoon," Ellen said. She stared frankly at it. She seemed on edge, but the way a tourist is excited at seeing new and wondrous sights, not afraid. If she can do it, so can I, Kevin thought. He was more shaken than he cared to admit.

Then there was more industrial activity around them. They were moving into full daylight, and Kevin was surprised to see how far they'd come from the base station in such a short time. Up ahead was a mirror larger than a football field. It just hung there in space. It focussed sunlight onto a rock somewhat larger than a house. Other big rocks nearby anchored what looked like big flat metal plates. Something—he supposed metal—boiled off the target rock and condensed onto the plates.

After that they saw a cage that looked as if it were made of ordinary chicken wire. It was big, half a kilometer in diameter, and it was filled with launching pods, tanks of all sizes, rocks, spare scooters, what looked like big garbage cans, plastic bags—anything that wasn't in use at the moment. It kept things from drifting away.

They went past other marvels, and eventually *Wayfarer* came into sight. The scooter pilot pointed it out to them. "Your home for a while," he said.

Their first impression was of a bundle of huge cigars. Those were the big fuel tanks almost a hundred meters long. They were so large that they dwarfed the rest of the ship, and ran the entire length of midsection. Behind the "cigars" was a solid ring that held three rocket motors. Then at the end of a spine as long as the main body of the ship was the nuclear reactor and another rocket motor.

This was the real drive. The three chemical rockets were only for steering and close maneuvering. *Wayfarer*'s power came from her atomic pile. The cigar-shaped tanks held hydrogen, which was pumped back to the reactor where it was heated up and spewed out through the rear nozzle. A ring of heavy shielding just forward of the reactor kept the pile's radiation from getting to the crew compartment. The rest of the pile wasn't shielded at all.

Despite the large size of the ship,

the crew and cargo sections seemed quite small. There were some structures reaching back from the forward ring where the control room was. Two of those were passenger quarters. The other was another nuclear power unit to make electricity to run the environmental control equipment, furnish light for the plants, power to reprocess air, and all the other things the ship and passengers and crew would need. There was a big telescope and a number of radar antennae on the forward section.

The scooter pilot was careful not to get near the reactor in the ship's "stinger." He brought them in to the bow. The outer door of an airlock stood invitingly open. A crewman brought a cable over and attached it to the scooter, and then hauled the scooter in close. Then the passengers began the trip from their saddles into the airlock, crawling across the cable like so many spiders.

When it came his turn Kevin judged the distance and decided to jump. He had just crouched when the pilot grabbed him. "Hey, no!" the pilot shouted. "Not your first time in space!"

Kevin shrugged and grinned into his helmet. Probably he'd have to take extra-vehicular-activity training while on *Wayfarer*. As if he hadn't learned the hard way how to jump around in free fall . . .

He crawled across the cable behind the others.

Home at last, he thought. For nine months. A long time.

VII

The ship had been designed for sixty passengers. She carried twice that number plus eight crew. Most of the passengers were already aboard; *Wayfarer* was crowded. No more than half the passengers had ever been into space before, and everyone drifted through the ship in total confusion.

The internal space was constructed in a series of circular decks. Each deck had an eight-foot hole in its center, so that from the forward end, just aft of the separately enclosed control cabin, Kevin could look all the way aft to the stern bulkhead. Although there was a long and rather flimsy-appearing steel ladder stretching from aft to forward bulkhead, no one used it. Passengers and crew dived from deck to deck in the null-gravity conditions of orbit. Most of the passengers weren't very good at it yet.

A harried crewman in red coveralls punched Kevin's name into a console. "F-12," he said.

"If that's supposed to mean something, it doesn't," Kevin said.

"F deck," the crewman said. "A deck is the bridge. B is the wardroom. C, D, and E are the three aft of that. E happens to be recreation and environmental control. Yours is the one beyond that.

They're marked." Someone else had come up and the crewman turned away. "You'll find it," he said over his shoulder.

Kevin shrugged. It was a mistake, because it caused him to drift away from his handhold. He grabbed frantically at a protruding handle —the ship had plenty of those—and when he was stable, launched himself down through the central well. He got past C and D decks before he had to catch something and try again. Since he was carrying his bulky Fiberglas travel case with all his luggage, he felt he had a right to be proud of his first efforts.

Finally he reached F deck, which he found to be sectioned into slice-of-pie compartments arranged in a ring around the central well, fifteen of them in all. He found the one marked "12" and went in.

His "stateroom" was partitioned off with a flexible, bright blue material that Kevin thought was probably nylon. The door was of the same stuff and tied off with strings. It didn't provide much privacy.

Inside the cramped quarters were facilities for two people. There were no bunks, but two blanket rolls strapped against the bulkhead indicated the sleeping arrangements. It made sense, Kevin thought. You didn't need soft mattresses in space. "Sleeping on a cloud" was literally true here. You needed straps to keep you from drifting away, but that was all.

One viewscreen with control console, a small worktable, and two lockers about the size of large briefcases completed the furnishings. The cabin wasn't an encouraging sight. Kevin wondered what he should do with his gear. His Fiberglas travel case was stuffed with things he'd been told he'd probably need for the trip; another larger case had been stowed somewhere by the crew and was inaccessible. He wandered out into the central area of F deck, and found that in other staterooms people were lashing their travel cases to the bulkheads. Kevin went back and did the same.

He wondered who his cabinmate would be. No one had asked him if he had any preferences. The only person he knew aboard *Wayfarer* was Ellen, and she wasn't likely to accept an offer to share quarters. While he was trying to convince himself that it couldn't hurt to ask, a middle-aged bearded man, quite heavyset, came in carrying two large travel cases. He looked up at Kevin apologetically.

"They told me to bunk here," he said. He blinked rapidly and looked around the small room. "It isn't very large, is it? I'm Jacob Norsedal." His voice wasn't very deep to begin with, and the low air pressure in the ship made it sound squeaky.

Kevin introduced himself. He tried to shake hands with Norsedal, but again got separated from his handhold and drifted across the ca-

bin. Norsedal looked thoughtful, then, holding a wire conduit that ran through their stateroom, reached out and very gently pushed against Kevin. Kevin drifted to the bulkhead where he got himself back into control. Norsedal looked pleased.

The incident reminded Kevin that he was in free fall, and his stomach didn't like it much. He gulped hard. "I'll be glad when we're under way," he said. "It won't last long, but it will be nice to have *some* weight again. Even for a day or so."

Norsedal frowned and rolled his eyes upward for a moment. "Not that long, I'm afraid," he said. "Let's see, total velocity change of about five kilometers a second, at a tenth of a gravity acceleration—five thousand seconds." He took a pocket computer off his belt and punched numbers. "An hour and a half. Then we're back in zero-gravity." He restored the computer to its pouch. It was secured to it with a short elastic thong, as was everything else Norsedal carried.

Kevin was fascinated with the man. He went about everything methodically. First he strapped down his travel cases. Then he opened one. A geyser of clothing, papers, pencils, another and far more elaborate computer than the one he wore on his belt, chewing gum, bulbs of soft drinks, more clothing, a dozen magnetic-strip programs for his computer, and other small objects floated up into

the room. They dispersed in the compartment.

"Oh, my," Norsedal said. He looked thoughtful. His hand snared the computer as it drifted by. Then he reached into the travel case again and got a shirt. "If you'll help me with this—"

Together they used the shirt like a seine to net all the gear. Norsedal produced a laundry bag to hold everything. Then he fished around in the travel case, more carefully this time, until he had a pleased expression. He came up with a small nylon-covered package that contained several rolls of Velcro, a pair of scissors, and a squeeze-tube of quick-drying glue. He began gluing Velcro hooks into his travel case and his locker. "I should have done this back on Earth," he said. His voice was almost perpetually apologetic. "But it wasn't certain I'd be coming, and they didn't give me the cases until just before I left."

Kevin watched interestedly. When the lockers were entirely lined with glued-on Velcro hooks, Norsedal carefully began work with the fuzzy Velcro, attaching strips to all his personal gear. Calculator, pencil case, notebook, tape recorder—

"That's a great idea," Kevin said.

"Want some? I brought plenty."

"Thanks, yes." Mostly Kevin was interested in the other man. He didn't seem like anyone Kevin would have thought would go to

space. Norsedal was clearly overweight, very visibly so. He sniffed as if suffering from a sinus condition, and one of the objects Kevin had caught for him was a kit containing a hypodermic needle and bottles of what must have been room-temperature insulin. Although it was obvious that Norsedal had thought a lot about life in zero-gravity conditions and tried to make preparations, it was also obvious that he'd never been in space before. He had trouble keeping himself anchored while he worked.

"Who're you with?" Kevin asked. He had to talk much louder than he was used to; the low air pressure didn't carry sound very well. Although there were people in the compartments on either side and the partition was only thin nylon, they couldn't understand the conversations in the next cabins.

"Interplanet." Norsedal continued working with glue and Velcro. The glue smell was strong, but not excessively so. "I hope the air system doesn't have trouble with this," Norsedal said. "I suppose I should have brought water-soluble glue. But I wanted it to dry quickly. Maybe we should ask someone—"

"I wouldn't worry about it," Kevin said. Interplanet, he thought. That was the Zurich-based international consortium that maintained one of the two bases on Ceres. Kevin couldn't picture Jacob Norsedal as a miner or prospector and he certainly wasn't any kind of con-

struction worker. "What will you be doing on Ceres?"

"Computer programming. And experiments with the computer system," Norsedal said. "Storekeeping—I'm supposed to set up an inventory control system for them. And work time-effectiveness studies. Anything that needs doing with computers." He seemed very happy about the idea.

"I—" Kevin hesitated. He didn't want to offend the man. Presumably there would be an opportunity to swap cabinmates once the ship was under way, but in any event there was certainly no sense in getting into an argument with someone you'd have to live with for months. His curiosity got the better of him. "You don't seem like a spaceman."

Norsedal smiled through his beard. "No. That's what the company said when I applied. It took me a long time to convince them. But look at it this way. A ten-year supply of insulin doesn't weigh very much. Nor does it matter if I'm overweight, not in Ceres' gravity, or in none at all. And I had one very good argument: I wanted to go and I can do the work." He began stowing his gear as he glued fuzz onto it. Decks of magnetic-backed cards. Three wargaming books. When he came to those he looked thoughtfully at the reader screen.

"I think I can tie that into my computer," Norsedal said. "We can use it for a display. Are you interested in wargames?"

Kevin had never thought about it. "After a few months in space I expect I'll be interested in anything—"

Norsedal grinned. "That's what I thought. We'll teach this thing to play Star Trek." He reached out to the screen and touched it, petting it like a dog: nice screen. Pat, pat.

* * *

They had two days aboard *Wayfarer* before the final boost toward Ceres. Kevin thought it would have been fun if there hadn't been so many people crowded aboard. He learned to eat in free fall, although he still managed to get a lot of the food into the intake grid of the air recirculation system: the only way to spoon food from plastic bags to mouth was in one smooth motion, never stopping. If he halted the spoon on its way, the food kept going to splatter against his face or shoot over his shoulder.

He also learned to do tumbling in zero-gravity. One of the other passengers organized a pool: the winner would be the first passenger to go in a single leap from A deck all the way to the aft bulkhead. No one looked like winning it just yet; four decks was the record. It was Kevin's turn to try when Captain Greiner ordered all the passengers back to their cabins for boost.

Weight felt strange. The ship boosted at about ten percent of Earth's gravity, but Kevin found

that quite enough. All over the ship loose objects fell to the decks.

"Last chance," Jacob Norsedal said. "Until halfway there. Anything lost after this boost is done will either go to the air intake grid, or it won't show up at all."

Ninety minutes later the acceleration ended. *Wayfarer* was now in a long elliptical orbit that would cross the orbit of Ceres. Left to itself, the ship would go on past, more than halfway to Jupiter, before the Sun's gravity would finally turn it back to complete the ellipse and return it to its starting point. In order to land on Ceres, the ship would have to boost again when it got out to the orbit of the asteroid.

There would also be minor course-correction maneuvers during the trip, but except for those the ship's nuclear-pile engine wouldn't be started up until they arrived at Ceres's orbit. Then the ship would accelerate to catch up with the asteroid. That wouldn't happen for nine months.

Nine months was a long time Kevin had thought, but he was surprised at how quickly time passed. With only ten crewmen aboard, the passengers had to take turns working ship maintenance systems. Kevin was assigned to life support, with the job of cleaning out the sewage-processor. It wasn't his favorite work, but he learned a lot about the algae tanks and chemical processors that took human wastes, including exhaled carbon dioxide,

and turned them into oxygen and food.

There were also large leafy plants: lettuce, spinach, even watermelons and pumpkins. These vegetables furnished variety in their food, but were not really important to the ship's ecology. It takes a lot of surface area to absorb sunlight enough to convert a hundred people's wastes, and the larger the plants the less surface they had for the mass they took up. Algae are not as pretty as strawberry plants, but they are highly efficient.

The heart of the system was a series of large transparent tanks filled with green water and tropical fish. Once *Wayfarer* was under way the crew erected large mirrors outside the hull. The mirrors collected sunlight and focussed it through plexi-glass viewports onto the algae tanks. A ventilation system brought the ship's air into the tanks as a stream of bubbles. Other pumping systems collected sewage and forced it into chemical processors; the output was treated sewage that went to the algae tanks as fertilizer.

Kevin called it the "green slime works" and was always suspicious of the food served aboard *Wayfarer*; harvesting and food processing was somebody else's job, and Kevin didn't want to know the details. He knew that the algae became high-protein flour somewhere along the line—but he also knew what the algae tanks took in. The thought wasn't particularly appetizing.

He got to know most of his fellow passengers. Ellen was roomed with two other women in a slightly larger cabin on L Deck, not far from the stern. Wiley Ralston was one deck above her. So was Bill Dykes, the miner/prospector Kevin had met on the plane to Baja. Kevin met a number of others as well; he had a very popular roommate.

Jacob Norsedal was madly teaching his personal computer to play Star Trek, Galactic Empire, Waterloo, Alexander the Great, Diplomacy, and any other game people wanted to indulge in. He had also invented a three-dimensional interstellar war game with a dozen mutually opposing sides and that seemed destined to be interminable—the players needed a computer just to tell them their options. Norsedal didn't play games himself, but he loved being referee, and his quarters tended to be a meeting place for those with nothing to do.

Kevin, to his sorrow, wasn't included in that category. On his second day after boost a large man came to the stateroom. "Kevin Senecal?" he demanded.

"Me," Kevin admitted.

"George Lange. Senior Daedalus employee aboard. I guess I'm your boss." Lange held out a stack of cassettes. "You're supposed to study these."

Kevin eyed them warily. "That's a lot of reading—"

"It's just a start," Lange said.

"I've got a lot more for you. You're expected to *learn* something on this trip." He glared at Norsedal's computer, which was marching armies across the reader screen. "There's *work* waiting out in the Belt."

"And we've got *months*," Wiley Ralston said. He came into the stateroom. With four people inside it was crowded, but not badly: Ralston and Norsedal took places near where the ceiling would have been if there had been a floor and ceiling; with no gravity, there was no up or down and any part of the room was as comfortable as any other.

"There's months' worth of learning to be done," Lange growled. "Look, this ship is *it*. Either we make some profits out of the Belt, or there won't be more ships going. Not even the big companies can keep up this investment without some return. So at least you, Senecal, will get to work learning what you ought to—"

Later Kevin found he had tapes on general space operations, mining, prospecting, environmental control systems, composition of asteroids, orbital mechanics—

Norsedal helped him study. He claimed to be interested, but Kevin thought Norsedal had probably learned everything on the tapes and was too polite to admit it. Certainly he was a good coach. Anything that could be done with a computer particularly interested him, and he

showed Kevin how to do simple programs to solve most of the problems on the tapes. Slowly Kevin found himself learning what he had to know, even though it left him very little time for social life. His studies tended to keep him busy, so that he conversed mainly with Norsedal.

Three weeks out Kevin finished the first stack of tapes. "I suppose he'll have more," he said.

Norsedal was sitting yoga-fashion on nothing. He looked like a bearded Buddha. "Probably."

"So I don't tell him I'm done," Kevin said. He waved at the stack of tapes. "Cripes, according to that stuff we've licked all the problems, but every time I see Lange he gives me this bit about how desperate everything is, and how much work there is to do—" He stopped because Norsedal wasn't amused and it showed. "Are things that bad? I thought we knew how to live in space—"

"We do," Jacob said. "Technical capabilities exceed requirements by an order of magnitude. But Lange is right all the same. The space colonies aren't self-sufficient, and there aren't many ships. The Luna people want more Earth cargoes, the O'Neill Colony people want the ships, and the big companies can't afford to keep sending ships out to the Belt unless they get something back. I wouldn't be surprised if this were the last ship from Earth until the Ceres refineries

prove they can make a profit."

"You mean it's *really* up to us?" Kevin asked.

Norsedal was very serious. "It might be. It's worse than that, really. Earth is so near the edge that if this attempt doesn't make it we may never be able to afford asteroid colonies again."

It was a sobering thought. Kevin looked at the pile of tapes. "I guess I'd better tell Lange I'm ready to get back to work."

VIII

With 130 people packed into quarters that would have been cramped for half that number it was inevitable that the passengers would get on each other's nerves. Kevin was surprised at just how few fights developed. There were plenty of quarrels and screaming matches, but not many blows. The worst part of it was the almost complete lack of privacy aboard *Wayfarer*.

For the first weeks this was no great problem for Kevin: there was too much to do. He had tapes to study, Norsedal's wargames, extravehicular activity practice under supervision of the crew, maintenance duties and other ship's work that was rotated among the passengers—and just plain getting used to living in zero-gravity.

He spent hours playing with liquids: squirt a dollop of colored water from a syringe, and it im-

mediately became a sphere like a miniature planet. Inject an air bubble into it with a syringe and it assumed a new shape. Blow on it gently to get it rotating and it became a donut of water hanging in space.

There were rivers of stars to see outside any viewport. He had to learn the constellations all over again; there were just too many stars to let him recognize the old familiar patterns as seen from Earth, so many stars that in a darkened room you could almost read by starlight. But during EVA practice, perched above the ship's telescope tower with nothing ahead or above, he felt as if he were suspended motionless in space, a part of the universe. Kevin was always sad when his time was up and another passenger took his place. He eagerly looked forward to his practice sessions outside the ship, and wondered whether, when he reached the Belt and he would be outside for many hours at a time, he would ever get used to the wonder and grandeur of space. He hoped he would not.

As weeks went by, though, he found the lack of privacy becoming more irritating. There were 30 women among the 120 passengers aboard *Wayfarer*. Half of those were married and most of the remainder had formed quasi-permanent attachments. None of this bothered Kevin, since Ellen MacMillan remained at large and seemed to enjoy his company; but he could never be alone with her, and that was annoying.

Eventually the problem solved itself: they were assigned to environment systems maintenance during the same shift. Dismantling and cleaning sewer pipes wasn't his idea of a romantic setting, but it did have the advantage that no one else was interested in being in the same compartment while they worked. And Felipe Carnel, the ship's Chief Engineer, was happy enough to leave the work to qualified passengers once he'd checked them out; and Ellen was as competent and conscientious as he.

The work was not demanding, merely messy and difficult; they had plenty of time to talk. For some reason Ellen seemed genuinely interested in Kevin and kept drawing him out. She was easy to talk to, and he found himself telling her about his early life, about school, and why he had come to space. Although he was usually somewhat shy with girls it was easy to be friends with Ellen.

"I think I've told you everything there is to know about me," he said finally. "And I don't know anything about you. You never talk about yourself—"

"Nothing to talk about." She squinted up at him and made a face. During the week they'd worked together they'd developed a system of signals. This one meant that she had sweat in her eyes and filth on her hands.

Kevin took a clean tissue and wiped her face. "Thanks." She

went back to reaming out the plastic pipe.

"Come on," Kevin said. "You've made me do all the talking."

"There really isn't anything to tell," Ellen said. "I don't have any relatives. I was raised in an orphanage—"

"I didn't think they still had those," Kevin said. "Foster parents and—"

Ellen shuddered. "I was through several of those foster homes. Horrible way to live. Kevin, did you ever hear of the Futurian Foundation?"

"No."

"I guess not too many have. It's an organization that's interested in where—" She laughed. "It sounds silly if you're not a part of it."

"No, please. Tell me."

"Well, we're trying to look at where mankind is going," Ellen said defiantly. "Governments look ahead as far as the next election. The big corporations can look a little farther, sometimes as far as ten years. And nobody worries about what's going to happen after that. Nobody except us. We try to look hundreds, even thousands of years ahead."

"And you're a member of that—"

"Sort of. They raised me. When I was fifteen they bought me from the foster parents I was with—"

"Bought you? Sounds like slavery."

She shrugged, a tiny wriggling

motion; they had all learned new gestures for use in zero-gravity. She shifted her location, wedging one foot under a pipe clamp so that she could use both hands for the job she was doing.

"In a way it is," she said, "The state pays the foster parents to raise orphans. It's profitable work. They're paid by the number of kids in their home, so the foster parents don't want to let anyone go. The social welfare people don't want to let you go either—if they don't have orphans to take care of, they can't justify their jobs. So the Futurians had to pay off the foster parents, some lawyers, and two social workers. I'm glad they did."

Kevin looked puzzled. Ellen laughed. "Nothing mysterious about it. They have a testing program to catch the right people young and get them thinking about the future instead of themselves. That's all there is to it. I've been brought up to be satisfied with enough to live on, not to want anything more except my work—so I've got everything I want."

"And you think that's not interesting?" Kevin said. "You seem to have found the secret of the ages."

She laughed again. It was a pleasant sound, even muted as it was by the low air pressure. "We don't keep all our recruits, you know. Most of the kids we bring up go off to normal lives. Only a few of us join the Fellowship."

"But you did?" She nodded. "I suppose that's like a priesthood," Kevin said.

His voice had betrayed his thoughts, and she laughed again. "Not really. We're not celibate, you know! Although sometimes you act as if you think I am—"

"Hey, wait a minute, that's not fair," Kevin protested.

She was laughing again. "The way conditions are on this ship we both might as well be monks—either that or adopt the attitude of monkeys in a zoo, and I'm afraid I haven't got to that point yet. There. That's done. You tighten up the connections while I clean up." She looked down at her hands. "Yuk."

Kevin pushed away from the bulkhead and expertly floated over to the pipe assembly. He was proud of his hard-won ability to work in null-gravity conditions. He got one foot wedged into the pipe retainer and braced the other against a wire channel, leaving both hands free, and applied a big wrench to the pipes. The fittings turned hard, and everything took at least twice as long to do in zero-gravity as it would have on Earth. Finally he had it done. "You can turn on the pressure."

The system worked again, with no leaks, and Kevin nodded in satisfaction.

"Now. We're alone, and this is done, and—" He reached for her. She didn't resist.



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"I think we'd better stop," she said, after a while.

"Why?"

"Because this isn't a very private place, and I am *not* a monkey in a zoo. The Leones may not mind putting on demonstrations for the other passengers, but I do—"

"Nobody ever comes here."

"Yes they do." She pushed away from him and caught a look at her reflection in one of the big plexiglass algae tanks. "I'm a mess. Ugly—"

"You're not."

"Thank you. But I am. So are you, for that matter. Our faces are all swollen up, our lips are chapped, and we're getting pimples."

"All true but all irrelevant," Kevin said. "We knew that would happen before we signed up for a long trick in zero-gravity."

"But I didn't think I'd look *this* awful."

"You look all right to me." He did a double somersault from his bulkhead and landed just next to her. He grinned and reached for her again.

"Kevin, please . . ." Finally, she pushed away again. "Please. That's enough."

"Not for me—"

"Not for me either, but it's still all we're going to do," she said. "And don't look like a hurt little boy. Kevin, I like you. That's just the trouble. If we—this wouldn't be just a shipboard romance. Kevin, I can't afford emotional involvements.

We've both got too much to do when we get to Ceres."

"So we have work to do. There's more to life than work—"

"Sometimes. Kevin, once we get to Ceres we may never see each other again. It's not fair to either of us to—to get too attached to each other."

"I'll take my chances."

"You say that now because I'm the only girl available. You wouldn't if—if you knew what you'd be getting into. I'm not somebody you ought to know, Kevin. I shouldn't have teased you. I'm sorry. I get lonely too, and I forgot that we'll never just be two people—"

"What?" Kevin frowned. There was a strange expression on Ellen's face, a strange look in her eyes, and he didn't understand.

"There's so much you can't know," Ellen said. "Kevin, we're friends. Let's leave it at that." She turned away to stare at pressure and flow gauges. "I think we've got this working again, and I've got some writing to do." She left the compartment hurriedly.

Kevin wanted to follow her, but she moved too quickly, and there were people in the corridors outside. He came back to stare into the algae tanks.

Tropical fish swam through the thick plant growth. They had adjusted to lack of gravity and oriented themselves as if the light source were "up." They no longer

seemed confused—but Kevin was, and he didn't like it.

"She said she liked me," he muttered to the fish. "And it's a long way to Ceres." He could comfort himself with that. It was a long way to Ceres . . .

A week later they were both transferred to other ship's duties, not together. Kevin saw her quite often, but never alone.

Kevin's new assignment was on the bridge. His partner was Wiley Ralston, and Kevin found himself telling his friend about his problems with Ellen.

Ralston laughed. "Persistence, old buddy. Persistence and propinquity. Girls aren't any different from guys. They get horny too. Give it time."

"There doesn't seem to be a lot else to do," Kevin said.

"Yeah. Well, you'll have more of 'em to go after when we get to the Belt."

True enough, Kevin thought. But he wasn't sure that was what he wanted. He wasn't sure what love was, or whether he believed in it, but he kept wishing Ellen were around so he could tell her things he'd just thought of, and made excuses to go find her.

Eventually they were back in the farms and alone; and this time when he kissed her she didn't run away. A long time later, when they could speak again, she said, very seriously, "Kevin, we don't talk about love or the future. We're together

while we're on the ship. Nothing permanent; nothing lasts after we reach the Belt."

"Sure," he said; but he didn't believe her.

* * *

Kevin and Wiley Ralston had been assigned to the bridge again when the halfway course correction came. Captain Greiner was very casual about it. First he slaved the computer to the high-gain antenna, then took position and velocity readings from both Earth and Ceres. Finally he pointed the main telescope to the bright star Vega.

The ship's computer digested the information for a minute. Then it flashed ready lights.

"And this does it," Greiner said. He threw switches giving control of the ship to the computer.

A recorded voice sounded. "Now hear this. Stand by for thirty seconds of very low gravity. Low thrust for thirty seconds, commencing in one minute. Fifty-nine. Fifty-eight . . ."

"Almost as if the ship didn't need me at all," Captain Greiner said. "If it weren't for the maintenance, it wouldn't."

"But you can operate without the computer, while it can't work without you," Kevin said.

Greiner laughed. "Not hardly. Everything's got to be too precise. If we had plenty of fuel, sure, I could navigate by hand calculations;

but not the way we're cutting it."

"So even out here the machine replaces man," Wiley Ralston said. "Well, the damned machines can't do everything for us. Some things still need people. Though I wonder just how long—"

Kevin looked at him quizzically. Wiley grinned. "Just so long as they need us a few more years," Ralston said. "Long enough to get rich. Then they can run the whole damned universe by computer."

The countdown ended, and they felt weight again. Not very much weight, about one percent of Earth's gravity; but it felt strange to have a permanent "up" and "down" again. Kevin had found that he could orient himself to think of any direction "above" his head as "up" in zero-gravity; since he was facing forward, he suddenly found himself lying on his back instead of standing. He found later that everyone in the ship had had the same problem.

"Ceres has gravity," Jacob Norsedal said after dinner. "Let's see, about forty centimeters a second—four percent Earth gravity."

"Just enough so you can't jump off," Ellen said.

"A lot more than that," Norsedal said. His voice was apologetic but firm. He was apologetic for disagreeing; but he was never uncertain about his facts. He took his belt calculator, the small one he always carried, and punched in numbers. "You couldn't jump more than about 125 feet straight up," he said.

"Of course, you'd take a while coming down." Click-click. "Not so long, thirteen seconds. Half a minute for the round trip, up and back down again. Of course I've left out the mass of your suit and tanks. I could run it with those—"

"Never mind," Ellen laughed. She, like everyone in the ship, had found that if you asked Norsedal a question you often learned more than you wanted to know. "It's going to take getting used to all over again," she said. "Having things fall instead of just drifting around the way they do here. And I've gotten used to sleeping in zero-gravity."

They sat at the entrance to Kevin and Jacob's stateroom. One of the inevitable tumbling contests was going through the central well of the ship. Bill Dykes, the miner Kevin had met on the airplane to Baja, spun past doing somersaults and counting loudly. "Ninety-seven!" he announced with a grin as he went past. He was still centered in the opening, and it looked likely that he'd get all the way to the stern bulkhead. That was no longer unusual: the contest had been won weeks before, and now the passengers were trying to set a record for the number of somersaults before touching walls or decks.

"Damn!" Hal Leone was in Kevin's stateroom playing a stella war-game with his wife Jeannine. The game used ballistic calculations, and Hal had managed to get his ship

into an unrecoverable situation: no matter what he did, it was going to crash into a star. His wife chuckled. What made it embarrassing was that Hal was a mathematician and his wife a physician—but she always won.

Others gathered on F deck. It was almost time for another session of Norsedal's monster twelve-sided game, and the players were assembling. Someone produced a bottle of vodka vacuum-distilled from green slime. Despite its evil source it had no unusual taste at all. The bottle passed around. There was more activity in the well: a twirling contest, men and women pirouetting in midair. Then Bill Dykes came tumbling back toward the bow, followed closely by his cabinmate and partner, Carl Lundgren. They were counting loudly.

"Happy hour," Ellen said.

Suddenly another man leaped across the opening. He collided heavily with Carl Lundgren.

"Look where you're going!" Lundgren shouted.

"Shove it," the other man said. Kevin recognized him: Frank Sales, a loner with a foul temper. Sales was going out to work as a miner. He was a short, almost dwarfish man, who compensated for his small stature with a constant program of exercises. All the passengers were supposed to take their turn with the exercise machines, but Sales was the only one who took extra time on them as a matter of course.

"Goddamit, I was headed for a record," Lundgren said. "What'd you want to do that for?"

Sales grunted and turned away.

"I asked you a question!" Lundgren shouted. "Come back here."

"Hey, buddy," Bill Dykes said, grabbing Lundgren's arm, "Drop it. He ain't worth it."

Lundgren shook Dykes off. "Keep out of this, Bill. That sawed-off little bastard never looks where he's going. Who the hell does he think he is?"

"Are you talking about me?" Sales grasped a stanchion and turned back toward Lundgren. "Are you?"

"Damn right, you little creep."

"Hey—" Dykes protested, but it was too late. Sales dived toward Carl Lundgren and knocked him from his perch against the edge of F Deck. The two men became a tangle of arms and legs tumbling in the central well. Lundgren caught Sales by the hair and pulled; the result was that both tumbled out of control.

Others moved to try to separate them, but only added to the tangle. Someone began to laugh and others joined. Ellen giggled. Then Sales's hand moved to his tool belt.

"Look out, Carl, the little bastard's got a knife!" Dykes shouted.

Lundgren turned frantically toward Sales. One of the others trying to separate them grabbed at Lundgren, missed, and caused him to spin violently again. Three other

passengers dove toward the fighting men, and there was another wild tangle of bodies. Then bright blood spurted out to hang in large droplets in the air. It was impossibly red, tiny red planets hanging in space.

Someone screamed, more passengers and a crewman appeared to separate the fighters. When the two were pulled apart they saw that Carl Lundgren spurted blood in rhythmic pulses from a slash across his throat.

"You've killed my partner!" Dykes roared. He started for Sales, but other passengers held him.

"He came for me!" Sales shouted. "You saw it, he ran right into me, I never meant to hurt him."

There was a babble of voices. "Get him to sick bay!" "Hold on to that murdering son of a bitch!" "Jeez, little buddy, you're going to be all right, you gotta be—" "Get a doctor!"

Jeannine Leone came out of Kevin's cabin and dove to the group holding Lundgren. Her hands worked frantically at the wound. "I can't get a grip," she said. "You, hold him against the deck. One of you hold onto my feet. Not like that! Hold me steady, I have to get pressure on this—"

Blood continued to stream into the ship. Bright crimson spheres floated toward the air intake grid. "We need weight," Jeannine shouted. "Send for the Captain—"

"I'm here," Greiner said.

"We need weight. Not much, just enough to let me do steady work. Can you give us acceleration?"

"No," Greiner said. "Can't do it."

"But he'll die—"

"I hope not, but we can't do it!" The Captain's face was grim. "If we accelerate now we won't get to Ceres at all."

Jeannine continued working, but finally she straightened and shook her head. "Too late," she said. "He's dead. I don't know if I could have done anything even if we had gravity." She turned to Bill Dykes. "I'm sorry—"

"Not your fault," the miner said. He looked at his partner's body, then at Frank Sales. "Now we got a murderer to deal with. I say we put him outside now and get it over with."

IX

"Trial! We gotta have a trial," someone shouted. The Captain agreed. Eventually it was settled. Of course everyone wanted to watch.

There was no place aboard *Wayfarer* large enough to assemble the entire ship's company. The wardroom deck could hold about half of them, with people perched around the walls and hanging onto the deck above. The rest had to scatter through the central well. Since it wasn't possible to understand what was said from more than ten feet

away Captain Greiner had everyone put on their helmets and tune to a common channel. Eventually everyone was settled, some scattered all through the ship, others on the wardroom deck. It was not an orderly meeting.

"There are few precedents," Captain Greiner said, "but this isn't the first murder in space. I am not sure the previous cases apply, however. In the first space murder the satellite commander tried the case himself, and himself executed the murderer. Although the commander—it was Aeneas MacKenzie, by the way—offered to employ the entire satellite crew as jury, there were complications including threats against the families of crew members, and MacKenzie ended by acting alone.

"However, in that case there was no doubt about the guilt of the murderer, or that the crime was premeditated; the murder was part of a scheme to sabotage the satellite. Few have questioned the justice of MacKenzie's actions."

Kevin felt Ellen shudder.

"What's the matter?" he asked.

"Nothing," she said; but her voice was low and tightly controlled.

"This is farcical," someone shouted. Kevin couldn't tell who it was; the voice came through his headphones. "You can't even establish that there's *been* a murder, and there is no impartial jury. Everyone here is prejudiced."

"Who the hell is that?" Bill Dykes thundered. "Not been a murderer? My partner's dead, and this bastard did it, and what's there to talk about? Put him outside and get it over with!"

Someone else shouted, "I got no use for Sales, but we have to let him tell his story—"

"Sure," Dykes said. "We listen to him, *then* we put him outside!"

Everyone began to talk at once. "It was a goddam accident—" "What the hell, fair fight—" "Damn murderin' bastard never was any use—"

"Silence," Greiner said. His voice carried authority. "We are holding this meeting to determine what we shall do. It will not become a shouting match."

"There's plenty of precedent from sailing ship days," someone said. "You can do anything you think best for the welfare of the ship."

"I am aware of that," Captain Greiner said. "As most of you know, I am an engineer and aircraft pilot by training. I do not come from a navy tradition and I must say I am reluctant to assume supreme authority—"

"You have to," someone shouted.

"But if that is what is needed, I will do so," Greiner finished.

Someone jumped up through the well to land in front of Captain Greiner. "I'm Martin Pacifico," he said. "I'm a lawyer."

There was a chorus of boos and hisses. "Who needs *him*?" Bill Dykes shouted.

It didn't seem to bother Pacifico. "Captain Greiner, the essence of a fair trial is an impartial jury. Obviously there is no possibility of such here. Even if there had been—and most of the passengers were witnesses to the alleged crime and thus were already not competent as jurors—your insistence on discussing this matter before the entire ship's company has contaminated all possible veniremen—"

"Oh, shut up!" Dykes yelled. "Captain, get that yo-yo out of here. My partner's dead, and dammit—"

"Enough," Captain Greiner said. "Mr. Pacifico, are you suggesting we wait until we reach Ceres to hold the trial?"

"That won't do either," Pacifico said. "Ceres has no jurisdiction—"

"So we must wait until Sales is returned to Earth?" Greiner asked. "Which could be ten years, or could be never—"

"Shut that goddam lawyer up," Dykes yelled. There were other shouts of agreement.

"May I speak?"

Kevin didn't recognize the newcomer, but Greiner evidently did. "Yes, Mr. Harwitt?" the Captain said.

"Harwitt?" Kevin asked.

"The Westinghouse supervisor," Ellen said. They spoke without using their microphones.

"Captain," Joe Harwitt said. "My company has an interest in this matter. Lundgren had signed up to work for us in the Ceres refinery and we paid for his passage. But now we have no one to do his work. I think that Sales owes us restitution."

"That is a civil matter," Pacifico said. "Not under consideration here. I would be glad to represent you, though—"

"Oh, shut up," Harwitt said. "I don't want money damages ten years from now, I want a refinery worker! It is too late to bring someone else out to take his place, but we can get *some* use out of Sales. He will have to do."

"I say, wait a moment—"

Captain Greiner seemed resigned. "Yes, Dr. Vaagts. I expected to hear from you sooner or later."

"Sales is signed up with Rheinmettal," Vaagts said, "and we will need him. You can't take him for Westinghouse—"

"Does Rheinmettal stand responsible for his actions?" Harwitt demanded. "You brought him here."

"Don't be ridiculous."

"I'm not being ridiculous. Somebody's got to compensate Westinghouse for the loss of our worker. I say we have a right to Sales as replacement for Lundgren."

"But he would be of little use to you," Vaagts said. "You admit he is untrained for refinery work. But he has a good record in deep mining operations, and we can use him."

Suppose, Joseph, that we keep him working for us, and compensate you for Lundgren's passage with funds withheld from his pay?"

"Rather have a worker than money," Harwitt said. "But I suppose we could make a deal. You'd have to pay interest, of course."

"I think that can be agreed," Vaagts said.

"You are speaking of slavery!" Pacifico shouted.

"Damn it, what about my dead partner?" Dykes demanded. "And his family back on Earth?"

"Ah," Vaagts said. "I suppose restitution to Lundgren's family is in order as well—we will divide Sales's pay between Westinghouse and Lundgren's family—"

"Slavery," Pacifico said again.

"You can't do this to me," Sales shouted.

Everyone began talking at once. "Civil rights—" "Screw his rights—"

"Put the bastard outside and get it over with," Dykes said again. He didn't sound so positive now. "Only—maybe it's not so bad, making him pay—"

"We still have not established Mr. Sales's legal obligation to *anyone*," Pacifico said.

"Captain, may I respectfully request," Dr. Vaagts said, "that if that extremely unpleasant lawyer person does not keep silent so that interested parties can come to agreement, we put *him* outside—"

"And who'd pay Interplanet

compensation for losing Pacifico?" someone asked.

"Take up a collection?" another voice added hopefully.

"Let us first determine who are the interested parties," Captain Greiner said. "First, of course, Mr. Sales himself."

"Glad you jokers realize I'm still here," Sales said.

"Shut up," Dykes yelled.

"Second," Captain Greiner continued, "the relatives and friends of Mr. Lundgren. Certainly they must have a voice in any settlement. Third, the two companies: Rheinmettal, which employs Sales and has paid for his passage; and Westinghouse, which has lost the services of Mr. Lundgren. Are there any others?"

"Justice!" Pacifico said loudly.

"If all interested parties are satisfied then justice has probably been served," Greiner said. "Now: Mr. Dykes, what do you propose?"

"Put him out—only I'll say this. If Carol Lundgren and the kids can get something out of this, that'd be better. Won't do them any good if we space this little creep."

"So. And we have heard the proposals of the interested firms," Greiner said. "It now remains to hear from Mr. Sales himself. Sales, you are charged with murder. How do you plead?"

"It was a goddam accident—"

"We can, if you like, call witnesses and determine just what happened," Greiner said. "But I think

we already know. There was an argument. You began a fight. You were losing it, and for whatever reason you drew a weapon which you used to menace Mr. Lundgren. Do you disagree so far?"

"Well—I just wanted to make him stop beatin' on me," Sales said. "I didn't intend to hurt him! You all saw it, somebody pushed him, he fell into my knife. I didn't go after him."

"I do not dispute that," Greiner said. "Does anyone?"

There were murmurs, but no one spoke up.

"About the way I saw it," Kevin said. Ellen nodded.

"The fact remains that you drew the weapon and menaced Mr. Lundgren with it, and thus you are the responsible party. You also began the fight."

"He provoked me—"

"But you struck the first blow."

"Fair fight's no murder," someone said.

"Perhaps," Greiner said. "But this was hardly a fair fight, with one party armed and the other not warned. I do not say what I would do if there were a formal duel aboard my ship, but I do say this was not a fair fight as I understand it. Have we established the facts to everyone's satisfaction?"

"This is terrible procedure," Pacifico shouted.

Greiner ignored him. "Then, Mr. Sales, you are certainly guilty of

manslaughter. Do you dispute that?"

"He provoked me," Sales insisted.

"And you are accordingly found guilty of that charge," Greiner said. "We have no jail facilities aboard this ship, and it is not my job to provide punishment in any event. I sentence you to forfeiture of all pay and allowances for five years. You will continue to be employed by Rheinmettal, which will take sufficient measures to prevent your injuring anyone else, and your pay will be divided equally between the family of your victim and the company which employed him. So ordered. First Officer, write it into the log and I'll sign it. Dr. Vaags, I deliver this man into your care. The ship's company is dismissed.

* * *

The rest of the trip to Ceres was uneventful—until the last day.

Kevin had once again been assigned to bridge duties, which consisted mostly of keeping the Captain and First Officer company, and making coffee in free fall—not the easiest job Kevin had ever done.

The last phase of the voyage was to be an acceleration lasting nearly three hours. *Wayfarer* was in a long elliptical orbit that crossed that of Ceres; in order to land on the asteroid it would be necessary to both change the ship's direction and to catch up with the tiny planet. The

process began hours before the burn, with *Wayfarer's* electronic gear getting a precise position and velocity fix. The ship had to be located precisely with relation to Ceres.

Captain Greiner programmed the radar antenna to seek out the beacon signal from Ceres. "Here goes," he said. He pressed the keys to initiate the position fix, then reached for a squeeze-bottle of hot coffee. He squirted coffee into his mouth, swallowed, and looked back at the control board. Then he frowned. "What the devil?"

"Sir?" First Officer Leslie Seymour floated over to the Captain's station.

"I'm not getting anything," Greiner said. "Nothing at all."

"That's odd," Seymour said. "It's as if the antenna wasn't working. Maybe I'd better have a look—"

"Maybe you had, Mister."

Seymour was already wearing his pressure suit. He reached for his helmet.

"SHUTDOWN. WARNING. COMPUTER SHUTDOWN," the computer announced.

"The hell you say!" Greiner muttered. He turned to the ship's computer and examined displays. "Damn! Leslie, it says it has a power interrupt!"

"Jeez. Antenna not working and now the computer's going out—"

"Check out the antenna," Greiner ordered. He lifted his inter-

com microphone. "Chief Engineer! Mister Carnel, get up here on the double. Something's happened to the computer. Leslie, on your way, now."

"Yes, sir." Seymour left the bridge, headed for the main airlock.

"What's happening, Captain?" Kevin asked. "Is there something wrong with the computer?"

"Damned wrong," Greiner said. "And we can't possibly make rendezvous with Ceres without it—there you are, Felipe. Look at this thing!"

Felipe Carnel looked at the shutdown message, then opened a panel and stared at dials. "It says that regulated power's been cut off, Skipper," he said.

"Regulated power? Where the hell's *that* power supply?"

"Back aft," Carnel said. "It's never given any trouble before."

"Better go have a look," Greiner said.

"Rojj." Carnel turned to leave the bridge.

"And have a look at the seals on the cargo hold," Greiner said thoughtfully.

The engineer looked back quickly. There was astonishment and worry in his voice. "Sir, you don't think—"

"Mister, I don't know what to think. Just check things out."

"Aye aye, sir." Carnel left hurriedly.

"Sir?" Kevin asked. "I thought we got power from the reactor."

"We do," Greiner said. "And there's no problem with the main power system. You can see that—the ventilation system's working, the lights are on. Nothing wrong there. But the brain here eats a very precise diet. It wants 400 cycle power, and that doesn't mean 399.9 either. If the brain's not getting what it wants, it shuts down to avoid damage to itself." Greiner frowned. "In fact, I wonder if it's not reporting antenna problems when all that's wrong is the power supply? We'll find out." Greiner didn't seem very worried.

It didn't seem serious, and Kevin went back to making more coffee. After all, they had ten hours before they started the engine. Besides—he could *see* Ceres in the ship's main telescope. He had watched it grow from a point to a recognizable object, no details but definitely a disc. They could aim for it and blast—

First Officer Seymour came back onto the bridge. "The antenna's gone, Skipper."

"Gone?"

"Clean gone. Like it was sawed off, or maybe blasted off with a couple of turns of prima-cord. Gone, anyway."

"Bat puckey. It can't be gone," Greiner said. "Blasted off? Sabotage?"

"Looks like it to me," Seymour said.

"Hmm. Well, we can still navigate with the telescope. If we get the computer running again,"

Greiner said. "But if—you really think it was sabotage, Leslie?"

"Yes, sir. What else could it be?"

They waited in silence. Finally Kevin asked, "If the computer's really out, what happens?"

"We don't get to Ceres," Greiner said. His voice was grim.

"Three years to home," Seymour added. "If we're lucky we can cut some off that, but not a lot. Think this tub will keep us alive for three more years, Skipper?"

"It might. With a lot of work," Greiner said. He looked thoughtful. "Present orbit takes us out to better than three and a half AU before we head back toward Earth. Less than ten percent of the sunlight we get down near Earth. It'd be close for a while. Not much light for the ship's farm."

"But—I can *see* Ceres," Kevin protested.

Greiner laughed without humor. "Sure. But how much do I burn aimed in what direction? Kevin, we've got just enough fuel aboard to set us down on Ceres. Nothing to spare for mistakes. Without the ship's computer we could never do it—"

"Can we get back to Earth without the computer?" Kevin asked.

"No. But that's not the problem. It's only the power supply. If we have to we can build another. We can build another antenna, too—ah." He stopped as Felipe Carnel came back into the bridge compart-

ment. "Well?" Greiner demanded impatiently.

"Cargo seals are all intact," Carnel said. "I put Phelps on watch down there, just in case—"

"Phelps alone?"

"No, I asked three passengers, random selection, to stand watch with him."

"Good," Greiner said. "And the power system?"

"Blown to hell," Carnel said. "Somebody put about fifty grams of plastique into the system. Messed it up good."

"And the spare is gone," Greiner said quietly.

"Might as well be. Been taken apart into little bits."

"How long to rebuild?" Greiner demanded. His tone indicated that he already knew the answer.

"Days," Carnel said. "Three or four days anyway."

"By which time we'll be long past Ceres and headed out to nowhere," Greiner said. "Interesting. Someone put a lot of thought into this. He's sabotaged the exact two systems to keep us from landing on Ceres without actually crippling the ship."

Greiner's calm broke at last. "That son of a bitch! He's done it! I can't put the cargo on Ceres—" he shouted.

"And there may never be another ship out here again," Felipe Carnel finished for him. "Somebody's just damned near killed the whole asteroid mining business."

X

"There must be something we can do." First Officer Seymour pounded his fist into his palm. "Raise Earth and have them run off the problem in Zurich—"

"Without the high-gain antenna?" Felipe Carnel laughed. "We can't raise Earth without that antenna."

"Ceres, then," Seymour said. "They've got a big computer—"

"And no programs," Captain Greiner said. "And once again, without the antenna, we can't rely on communications with them. We'll try, but I've no confidence." Greiner looked at the last print-outs from the ship's computer. *Wayfarer*'s last known position was one hundred thousand kilometers from Ceres. The ship's orbit crossed that of the asteroid at a sharp angle; *Wayfarer* would have to change direction, then catch up; in practice that meant a smooth curve stretching from *Wayfarer*'s present course to the asteroid's orbit, with a slight change of orbit plane as well—and Ceres moves at eighteen kilometers each second.

The problem was not merely to get to Ceres, but to arrive with exactly the same velocity as the asteroid, and going in exactly the same direction. The navigation would be only slightly less complicated than hitting a BB in flight with another BB fired by a gunner who had bad eyesight. An error of a

tenth of a kilometer per second would put the ship impossibly far away from its target.

"Leslie, try raising Ceres," Captain Greiner said. "Let's see if they have advice."

First Officer Seymour floated to the communications set and anchored himself to the stool. He lifted the microphone and began calling.

"What I want to know is *who*," Greiner said. "Damned clever chap, whoever it was. This was well planned. We keep our fuel, drift on in our ellipse, and eventually return to Earth. Stops us without committing suicide."

"But why?" Kevin asked.

Greiner shook his head. "Who'd benefit from this? Too many to count. The African mining outfits don't want competition from asteroid mines. Anti-technology people want to stop space exploration altogether—"

"Lunar mining outfits," Felipe Carnel cut in. "Or even the O'Neill colony people—they've been making noises about what a waste Belt operations are—"

"Skipper, I've got them, but they can't understand me," Leslie Seymour said. "OUR COMPUTER IS OUT," he shouted, then looked sheepish. "They just don't read us."

"Maybe when we get closer—" Kevin said.

"By then it will be too late," Greiner said. He stared at Kevin.

"You look like a man with an idea. Have you thought of something?"

"Possibly. Captain, I know somebody who can compute the burn for us."

"Who? And how—"

"My cabinmate, Jacob Norsedal."

"Norsedal," Greiner said. "He's been up here a number of times. Very interested in our ship's brain. Yes, I'd say he knows computers, but this isn't a computer problem, Kevin. We cannot rebuild that power supply in the few hours we have left, and we don't need a program, we need a computer—"

"Yes, sir, but he's got his own," Kevin said.

"I've seen it," Greiner said. "Kevin, he can't possibly do this calculation with that little belt model he carries—"

"I wouldn't bet on that," Kevin said. "But he doesn't have to. He's got a much bigger one in our cabin. Uses it for wargames. Recreation stuff. And he's been keeping track of *Wayfarer*. He calculated the mid-course correction you made, and said something about it being off, but not much—"

Grenier looked thoughtful. "Felipe, go ask Mr. Norsedal to come to the bridge. And ask him to bring that extra brain with him."

"Right," Carnel said.

"And you needn't tell the passengers about our problem," Greiner added. He waited until the engineer had left the control cabin.

"Now, Kevin, how sure are you that Mr. Norsedal isn't the one who bollixed our system to begin with? I wonder who else could have thought of this method?"

"You'd think that was funny if you knew Jacob," Kevin said. "He's a space fanatic. Also a computer fanatic—he likes them more than he likes people. He'd never harm one."

"I point out to you that this one hasn't been harmed," Greiner said. "And I grant you it's not likely, but it's certainly possible that someone who seems to be a space fanatic could be one of the anti-technology people. They do study technological systems, you know."

"Possibly, but Jacob isn't against technology," Kevin insisted.

"I hope you're right."

* * *

When Carnel returned with Norsedal, Captain Greiner explained the problem. "Senecal here thinks you can do something," Greiner said.

"How much time do we have?" Norsedal asked.

"The burn was scheduled to take place in four hours," Grenier answered.

"Not much time," Norsedal looked thoughtful.

"No. Well, it was just a possibility. I didn't really believe in—"

"But I think we can do something," Norsedal said. He went over to the chart table and placed an

attaché case on it, using the table straps to hold it in place. He anchored himself to the stool at the table, then opened the case and patted the computer inside. "Nice computer. Fortunately, I already have some of the programs we'll need. Now let's see—"

Jacob opened another compartment and took out paper. "Captain, I can program the course, but I can't possibly patch my computer into the ship's drive system—"

"No sweat," Felipe Carnel interjected. "We've got a lot of little special-purpose computers for that. One is slaved to the gyro system and controls the engine thrust. You tell the ship where to go and I'll see that she goes there."

"Good. I thought so," Norsedal said. "If you didn't have a lot of smaller computers dedicated to special purposes, the air system wouldn't work—" He began to work furiously. Pencils and paper floated away from him, to be retrieved by one of the others. He drank coffee constantly.

An hour went by. Then another. Finally Norsedal began punching input buttons.

"Done?" Captain Greiner asked.

"I have the basic program. Now we have to get it checked out and running," Norsedal said. He continued to type inputs. "Now we'll just try—"

He pressed buttons. There was a moment of silence, then the read-out screen filled with numbers.

"Stopped on an input error," Norsedal muttered. "That's simple enough." He typed for a moment, then looked up. "Captain, have you decided you will fly this course once I have it?"

"I'm still thinking about that," Greiner said. "No point in making decisions unless there's something to decide. Do you think you'll have it?"

"Probably." Norsedal didn't look up from his console. He muttered, sometimes to himself, sometimes to the computer. "Nice computer, tell me what I did wrong this time . . ."

"I don't like this much," Leslie Seymour said.

"Nor I," Greiner said. "But you know what happens if we do not deliver this cargo."

"Yes. I suppose we have to try." Seymour went to the main telescope. "At least we can get decent bearings," he said. "There's Ceres, nice and clear—"

"I hope so," Norsedal said. "I had to compute the course as a function of the position of Ceres relative to Vega. We'll need constant sightings on both."

"We can get them," Seymour said. "Captain, maybe it wouldn't be a bad idea to protect the main telescope. Before that son of a bitch gets to it—"

"Good thinking," Captain Greiner said. "In fact, we ought to locate all the passengers and crew and set them to watching each other

before there's more sabotage. I should have thought of that earlier." Greiner was apologetic. "I was never a ship captain, merely an astronaut with the European Space Program. Not the best training for what we're faced with. Leslie, see to it, will you?"

"Right, Skipper. Senecal, come with me, please. I want you to go outside and watch the telescope until we're certain that everyone is accounted for."

"Not alone," Greiner said. "Not that we don't trust you, Kevin—but who can we trust?"

"I understand," Kevin said. "May I use your intercom?"

"What for?"

"To call a friend." He went to the intercom panel and dialled a stateroom number. "Ellen, they've asked me to do an EVA. Will you come with me?"

"Who did you call?" Greiner asked.

"Ellen MacMillan. We've worked together on other jobs in this ship, and I know she can take care of herself outside."

"I heard about your difficulty getting to *Wayfarer*," Greiner said. "Yes. I'd think MacMillan would be a good partner. Certainly we could trust her."

"But Skipper," Leslie Seymour protested. "We can't let *her* go outside—"

"Now that she's said she will, have you any way you can think of to stop her?" Greiner demanded.

And what is this all about, Kevin wondered. He had no time to ask.

Seymour sighed. "No. I don't suppose I can," he said. "I guess she'll do nicely. Let's go find her." He opened the companionway door.

There were three people waiting outside in the main corridor. One came in quickly, pushing past Seymour.

"Mr. Pacifico, what the devil are you doing on my bridge?" Captain Greiner demanded.

"I represent the passengers," Pacifico said. His voice, already garbled by the lower atmospheric pressure in the ship, sounded shrill and petulant. "We've been told that the main computer is out, and you're going to chance a landing on Ceres anyway."

"Who told you?" Felipe Carnel demanded.

"It's all over the ship," Pacifico said. He turned to the others who had come in with him. "Isn't it?"

"That happens to be the case," Dr. Vaagts said.

"I hadn't expected *you* to protest," Greiner said.

"Nor am I protesting," Vaagts said. "I merely wanted to know what is happening. Mr. Pacifico certainly doesn't represent me, or Rheinmettal."

"So who do you represent, Pacifico?" Carnel asked.

"Most of the passengers. We demand that we be consulted before you undertake a dangerous maneuver like this. Isn't it true that if

you do nothing we'll go back to Earth, but if you try for Ceres and miss we'll have no fuel left? We'll all be dead?"

"True enough," Greiner said.

"And what confidence do you have in—you've got *him* doing it? The wargamer? Captain, you can't do this. You must take a vote—"

"Vote hell. Leslie, you and Senecal were going out to locate all the ship's company."

"Right, Skipper," Seymour said.

"And you, Pacifico, get off my bridge. Now. Or I'll have you thrown off."

"We have rights—"

"Leslie, heave him out."

"With pleasure, Captain." First Officer Seymour launched himself toward the lawyer.

"I'm leaving," Pacifico said. "But you haven't heard the last of this, Greiner. You are not a king, and this isn't the Eighteenth Century—" He went out quickly as Seymour prepared to take hold of him.

Kevin found Ellen in her cabin. He explained what had happened. "Finish getting into your suit," he told her. "We're supposed to go outside and look after the main telescope."

"Sure. You wait out in the corridor."

"Sure you don't need any help?"

"Thank you, no."

When they reached the airlock, Seymour had got most of the passengers together in the central

well. A crewman guarded the airlock. Kevin and Ellen checked their air supplies, then went out as Seymour was calling the roll of the ship's company.

* * *

Wayfarer had two airlocks. One was right in the bows, a large docking port that allowed smaller space capsules to link up with the ship, and could also be used to link with an airtight corridor connecting the ship with the Ceres spaceport, or even with another ship. The other was a smaller personnel lock on the side of the hull just aft of the bows. Kevin and Ellen went out that way. There was a small ladder leading forward.

With no gravity they had to be careful not to drift away from the ship. It would be easy to jump entirely away from *Wayfarer*. Although they couldn't fall off—they were moving at the same velocity as *Wayfarer*, and would until the ship's engines were started up—if anyone became separated from the ship he would drift away forever, moving slowly out into space.

They climbed carefully to the forward end of the ship and rounded it. Now there was nothing ahead of them at all. *Wayfarer* floated among a river of stars, bright starlight and the black shadows of space, and there was no sense of motion at all. They hung in glory. The sun was behind the ship so that they were

both in deep shadow, with just enough starlight so they could see each other. Their flashlights made small pools of light on the ship's dark hull.

"Magnificent," Kevin murmured. "I could stay here for the rest of the trip."

Ellen floated over to him and silently touched his gloved hand. It wasn't a moment for talking. They found places to anchor themselves and waited in silence. The big telescope was a few meters away. It moved slightly as Captain Greiner took sights.

Kevin searched for constellations among the stars. He could make out only a few of the traditional ones; there were too many stars, millions more than the ancient Babylonians who had named the constellations had ever been able to see.

"Now that our eyes are adjusted, we'd best have a look at the telescope," Ellen said.

"Right." They moved across the blunt bow of the spaceship. There were convenient handholds at intervals. *Wayfarer* would never enter an atmosphere and had no need for streamlining.

The telescope was large, over a foot in diameter, with flexible seals that let it pass through the ship's hull and into the control bridge. They moved next to it and examined it with their flashlights.

"That doesn't belong there." Ellen sounded very calm and not surprised. Her light indicated some-

thing about the size and shape of a coffee can. It was taped to the telescope barrel.

"It may go off anyway. When you move it," Kevin said. "Get away from it—"

"This is my job," she said. "Move back. Farther."

"No. You move—"

"I told you, it's my job. Now move or don't, I'm going to take this thing off."

Kevin felt like an idiot. He was afraid of the bomb, and he was also unwilling to move away to safety while Ellen worked on it.

"Idiot, somebody's got to tell them what happened," Ellen said. "If it goes off. So get away from here—"

"No."

"Stubborn idiot."

"No worse than you are—"

"True. There. I have it." She held up the can. "It didn't explode yet." She crawled toward the side of the ship, then got a firm grip on the handhold with her left hand. With her right she threw the can outward, away from the ship. They watched it dwindle and vanish into space. "Maybe it was old coffee grounds," she said.

"Maybe." Kevin found that he'd been holding his breath. "Ellen—what did you mean, it's your job?"

"I shouldn't have said that. I was scared. Kevin, please—forget that I said that."

"Sure," he said. But he knew he wouldn't.

"Outside party, this is Seymour." The First Officer's voice was loud in Kevin's helmet phones. It seemed a grating irritation in the silent grandeur of space.

"We're here," Ellen answered. "We found a bomb—or something that looked like one—attached to the telescope."

"But when was it put there?" Seymour demanded. "I looked at the telescope when I checked the high gain antenna. I'm sure I would have seen anything—"

"I don't know, but it was there," Kevin said. "Ellen threw it off the ship about two minutes ago. It will be a kilometer away by now."

"More like a couple of hundred meters," Ellen said. "It's difficult to throw anything very hard. But I'm sure it's far enough."

"Good. That's not what I called you about," Seymour said. "There are two passengers missing."

"Who?" Kevin asked.

"George Lange and that Pacifico person."

"George?" Ellen was incredulous. "He couldn't possibly have had anything to do with sabotaging the ship."

"He's my boss," Kevin said. "Always trying to get me to work. Ellen's right, he's not the saboteur. Pacifico—well, he's another matter."

"I think you ought to have a look around," Seymour said. "But don't

take long. We start the engines in ten minutes, and you'll have to be inside before that."

"We'll go in just before the burn," Ellen said. "Until then—somebody put that bomb on the telescope. We'll watch."

"Right. Out," Seymour said.

Ellen moved closer to Kevin. "Turn off your radio," she said. When he did, she put her helmet against his. "Do you have any kind of weapon?"

"Only the knife in my tool kit."

"I wish we had a pistol."

"But—there aren't any pistols aboard, no guns at all."

"How do you know?" she demanded. "Kevin, I'm worried."

"About Pacifico? He's a pipsqueak—"

"He seems to be. But if Lange is missing, someone killed him. He wouldn't have any reason to hide. He must have caught the saboteurs in the act, and they killed him."

Kevin tried to remember what little he knew about Lange. It wasn't much. He'd brought Kevin the tapes and made him study them, and he'd talked in a general way about the work Deadalus Corporation would be doing on Ceres. Nothing definite. "How can you be so sure it wasn't Lange who planted the bomb?" Kevin demanded.

"I'm sure. Kevin, I think we should separate. You go watch the port side, I'll watch the starboard. Burn is ten minutes from now. We have to keep anyone from getting

up here during the next five minutes. Then we'll be safe; and we'll be able to put the cargo down on Ceres—"

She started to move away, but Kevin caught her and pulled her back until he could put his helmet against hers. "Be careful," he said. "Sure."

And, he wondered as he crawled toward the port side of the ship, what the hell is that cargo? Captain Greiner talked about it. So does Ellen. Everyone seems to know but me . . . there had been one series of launch capsules that had been guarded by company police and Mexican Army tanks. What could be that valuable?

He reached the edge and looked along the ship, past the hydrogen tanks to the big ring at the end of the ship. Nothing moved. He wondered if he should show a light. If someone really wanted to cripple *Wayfarer*, it would only take puncturing a couple of those tanks.

But that would completely cripple the ship. It would be suicide for the saboteur, and so far whoever was doing this had been careful not to really damage *Wayfarer*, just put the ship out of operation for a few hours until it would be too late to get to Ceres.

If he could reach the telescope, though, he could still keep them from landing.

Lange. Could it have been George Lange? How likely that Pacifico could knock out the an-

tenna and computer power supply? Or kill Lange? Pacifico wasn't much larger than Ellen, while Lange was bigger than Kevin. Not that that meant anything—being large was no real advantage in free fall. It just meant long legs to bump into things. But Kevin doubted that Pacifico knew enough about the ship to have been the saboteur—

He glanced at his watch. Five minutes to burn: time to be getting inside. Even as he thought it, Seymour's voice came into his headset. "That ought to do it," the First Officer said. "Best get into the airlock. We're going to start rotating ship for the burn."

"Right. Ellen—"

"Kev, there's somebody out here with us!" Ellen shouted. "I saw him move. Just then. He's down by the tanks."

"Good Lord." Seymour sounded worried. "But we've got to start maneuvers. We can't stop now—the burn must be exactly on time—exactly!"

"I know," Ellen said quietly. "I'm going after him. Kevin, get inside."

"Don't be silly." He clawed his way over the bow of the ship as she vanished around the far side.

"Hang on," Seymour ordered. "In one minute and . . . three seconds we start turning ship. We have to."

"Right," Kevin answered. "Ellen. What's happening?"

There was no answer. He reached

the place where he'd last seen her and looked aft down the length of the ship. There was a flash of light from down there somewhere. He went over, pulling himself along the ladder, trying to make sure he was always holding it.

"If you start the engines I'll puncture the tanks!" came a high-pitched voice. Pacifico's. He sounded determined. Afraid but determined. "I'll do it!" the lawyer shouted.

"But—why do you want to keep us from getting to Ceres?" Seymour asked.

"I don't care about that," Pacifico said. "I want to go to Ceres. But you won't get us there! You can't navigate this ship with a suitcase computer; you've no right to risk our lives that way!"

"If you puncture the tanks you'll kill all of us including yourself," Kevin said.

"No I won't. We don't need all the fuel to get back to Earth. Stay away from me! I'll do it—"

"We're turning," Seymour said.

The ship moved slightly as attitude jets fired. It rotated slowly. Kevin didn't find it hard to hang on, and then the counter-jets fired to stop the turn. The ship was now heading almost exactly away from Ceres.

Kevin reached the tankage complex. It was dark among the long hydrogen tanks. "Ellen," he called.

"I see you," she said. "I think he's straight ahead of you."

"Get away from me," Pacifico screamed. "I'll do it, I swear I will!"

Kevin moved further into the tankage complex. Pacifico's voice came from nowhere and everywhere; it was weird, hearing him but being unable to locate him by sound. Kevin wondered if the lawyer had seen him. He saw no one. Not Ellen, not Pacifico. "You idiot, all the tanks are connected together," Kevin said. "If you puncture one of them, you'll let all the fuel escape."

"I don't believe that," Pacifico said. "It wouldn't make sense as a design. Meteoroids—"

"I'm afraid what Senecal is telling you is the truth," Seymour's voice interjected. "The tanks don't connect normally, but when we make preparation for using the main engines we have to interconnect them. Otherwise the fuel would be burned out of one tank at a time and we'd get off balance."

That makes sense, Kevin thought. I wonder if it's true? The important thing is to get Pacifico talking and keep him occupied until we find him. And then what? Kevin fingered the knife in his pouch. That seemed drastic—

"Kev! I've got him! Aft of where you are and around clockwise sixty degrees!" Ellen's voice came in panting gasps.

Kevin moved in the direction she'd indicated. He saw Ellen and the lawyer struggling like clumsy

wrestlers, their bulky suits preventing either of them from getting a decisive hold.

"One minute to burn," Seymour said. "Can you get into the airlock?"

"Afraid not," Ellen said. "Maybe we'll be all right here among the tanks—" Her voice rose. "Kevin!" she shouted in terror.

Both of them had moved away from the ship. Somehow they'd both lost their holds on the ship while trying to fight each other, and now they drifted free, a few feet away, unable to get back.

"My God! Help!" Pacifico screamed.

"Burn in forty seconds," Seymour said.

"You can't!" Pacifico screamed. "It's inhuman! You'll kill us!"

"Can't delay," Seymour said.

And he means that, Kevin thought. Not that Ellen would want him to delay. The Belt operation means too much to her. It's up to me, now. He dove forward, through the tankage. His months of practice in somersaulting through the ship let him get through the tanks in a clean arc.

He caught the ladder at the last possible moment, and reached out toward Ellen. "Grab hold!" he called.

She reached for him, missed by inches. He stretched but couldn't catch her.

"Ten seconds," Seymour announced.



"We're drifting free of the ship!" Pacifico screamed. "You can't do this, you can't—"

Kevin grabbed the safety line on his belt and hooked it to the ladder, then, letting the reel run free, leaped out toward Ellen. He grabbed her with both hands, then grunted with relief.

"You damn fool," she said. "You'll kill yourself—"

"Three. Two. One. Ignite," Seymour said.

The ship's engines started. There was no sound and no flame. Hydrogen was pumped from the tanks and into the nuclear pile on its sting at the end of the ship. The nuclear reactor heated the hydrogen and forced it back through nozzles. The

ship drove forward at a tenth of a gravity.

Kevin felt Ellen as a sudden dead weight. He threw in the stop on his belt reel, and they dangled from the ladder, with nothing holding them but the thin nylon line. Pacifico, still screaming, vanished behind as the ship drove forward.

As the ship moved, suddenly they and the safety line formed a pendulum. They felt the acceleration as they would a tenth of Earth's gravity as centrifugal force moved them until they swung back and forth in a small arc directly beneath the ladder. Kevin painfully reached up, still holding Ellen's hand with his. She wasn't heavy, only a tenth of what her weight

would have been on Earth, but Kevin wasn't used to *any* gravity. He held tightly, irrationally afraid that the thin nylon line wouldn't hold their combined weight of fifty pounds. He couldn't quite reach the ladder.

"Help! You can't leave me here to die in space! Help!" Pacifico screamed in terror. The ship moved inexorably away from him. Within thirty seconds he would be nearly half a kilometer behind, doomed to the loneliest death possible, alone in a river of stars and the emptiness of space.

"Can you let me down a little further?" Ellen asked. "I can almost reach one of the fuel pipes—"

"No hands," Kevin said. "I've—"

"Here. I've got you," Ellen said. "Now let us down a meter or so."

"How can you be so damned calm?" Kevin snarled.

He let go of her with one hand and reached the ratchet control on his belt line. He let the safety line run free for a second, then locked it again. They both fell toward the aft end of the ship, then were brought up short by the line. The thin nylon held easily.

"There. I've got it," Ellen said. "I've got my safety line clipped to the pipe support. Here—let out more of your line, and I'll pull you over."

Kevin did as he was told. Seconds later he had a purchase on one of the fuel pipes. He looked

up—the forward end of the ship was *up* now, and that was strange, to have a definite up and down. The pipe supports formed a ladder of sorts. It wouldn't be hard to climb back to the regular ladder.

"I guess we're safe," Kevin said.

"Thank God," Seymour said. "You're sure?"

"Yes," Kevin said.

They could still hear Pacifico's screams. His signal was growing weaker as he fell farther and farther behind.

"Pacifico," Ellen called. "Who hired you to sabotage the ship?"

"I didn't do it," Pacifico's voice said. "You've got to come back for me! It's not too late, I can see you, please, my God. Please, please come back for me, I didn't do it, I only wanted to stop this mad—"

His voice faded in and out now. "Come back. Please come back, you can find me, please . . ."

Kevin felt Ellen shudder beside him. He put his arm across her shoulders and felt her trembling. "It's all right," he said. "We're all right now—"

She didn't answer. After a while she pointed up toward the ladder. They began to climb. It seemed to take forever to reach the airlock. They thought they heard the lawyer's screams, ever fainter, the whole time.

TO BE CONTINUED

GALAXY

science
fact:

A Step Farther Out

Jerry Pournelle, PhD

SOME FUTURES

WITH INCREASING FREQUENCY I am being asked to lecture at various colleges and universities. My message is generally the same: that we don't have to die; that the Club of Rome is deluded; that this generation can, if we will, make advances at least as significant as the control of fire, the discovery of the wheel, the domestication of animals, yea, the invention of agriculture. We have only to make the decision, and a few sacrifices. The technology exists.

When I am done I find a curious and almost universal response. First, the audience is somewhat overwhelmed, which doesn't surprise me because I have developed a lot of data and, bluntly, I'm pretty good at presenting it. Next, I find the message welcome, and few members of the audience want to argue. Again not surprising: why would anyone, particularly the young, want to believe anything else? But third, what was once a surprise but happens so frequently it no longer is: "Where have you been? Why has no one else told us this? All we hear is that

Earth is polluted, technology can't save us and is evil to boot, we're running out of resources, there's Only One Earth . . ."

That response doesn't come only from students. At a major southwestern research institution I got the same response when I spoke to the technical staff. Presumably each of the engineers had his own opinions, not too different from mine; but the prevailing climate of opinion led each to believe the others thought we were doomed. At the universities the students find the faculty members, if they comment on the future at all, crying doom.

So I shuttle back and forth across the country, to this institution and that, trying desperately to tell America's youth that they have a future. But do they?

Because of course I cannot tell what the future *will* be. I know what it can be: a world of plenty, a world of "Survival With Style" (*Galaxy*, March, 1976), a world in which the United States is wealthy but is not merely an island of wealth in a vast sea of misery; a world in which

everyone has more than enough to eat and, if they want it, a standard of living at least as good as what we enjoyed in the 50's; but that's only what it *can* be.

We might go another way. Our grandchildren may curse our memories. There are times when I am convinced that my world will never be.

But what could happen to us? We have the technology. There is no "energy crisis" in any meaningful sense—that is, we know how to produce the energy we need to sustain our high-technology society until such time as we can develop eternal sources. We know how to get to space, and we could, if we had to, begin right *now* the development of capabilities for mining the Moon and the asteroid belt. The world already grows more than enough food to support its population (although the distribution system is terrible, and insects, rodents, bacilli, fungi, and other pests eat more of our crops than ever we do, particularly in the "developing" nations). We *can* survive, and with style; why might we not?

Well, to begin with, there are the last two horsemen. War is hardly impossible. True, there are signs that many rational planners in the Soviet Union realize that their own development—yea, and survival—depends on *not* conquering the West; that the West is more valuable as a trading partner than ever it would be as part of an empire man-

aged as badly as the Soviet Empire now is. True, but not decisive. There are dinosaurs in the Soviet Union, real communists whose moral position is intolerable if ever they abandon marxism. For an analogy: could an Inquisition priest ever have admitted even the possibility that his religion was not true? Could he have lived with himself if ever he did?

And the Soviet Union continues to build and develop weapons long after any discoverable defensive need. Recall the theory? U.S. weapons development stimulated the Soviets; once we called a halt, and they achieved parity, they would see the wastefulness of it all—after all, weapons cost them far more than us (in terms of respective Gross National Products), and they need the resources for development far more than we do—and they would cease this insane arms race.

So we stopped, and they achieved parity, and they achieved superiority, and they seem headed for supremacy, and they halt not, neither do they slow; indeed, their rate of arms procurement tends rather to increase. No, war is no impossibility.

Then there are the fears of cogent men like Roberto Vacca, whose book *The Coming Dark Age* cannot be ignored. Vacca points out the increasing complexity of our modern civilization, its increasing dependence on centralized planning and control, the interdependence of all

parts on each other, the far-reaching consequences of seemingly trivial errors—recall the power failure in the Northeast caused by one generator going and kicking out all the others? If the margins get thin enough, and Vacca believes they will, collapse of our civilization could be much quicker, and much more thorough, than might be supposed.

After all, no country is more than three meals from bread riots; and rioters have been known to act as if they believed the best way to feed themselves is to burn the bakeries. Urban firestorms are hardly impossible, and the water supply and fire fighting systems are vulnerable. You might or might not be surprised to know just how easily such systems could be knocked out, by accident or by design.

Imagine the colossal traffic jams if the traffic signals ceased working. Couple that with snowfall and ice. Barges frozen in mid-stream, unable to supply coal-powered electric plants; coal yards frozen solid; insufficient electricity to operate the pipelines, thus cutting off oil and gas; railroads not working; people freezing in the dark; trucks not working (it takes electricity to get the gasoline out of our environmentally-protected tanks in filling stations); goods not moving—but you need not imagine it, because it happened to some of you, briefly, and on a smaller scale. Fortunately the nuclear power plants continued to

operate, and the Great Freeze of '76 was essentially local; but it takes no great imagination to envision a much wider-spread catastrophe, and to couple it with deliberate action by, say, the authors of *The Anarchist's Cookbook*, to see how easily the nation could be crippled.

Temporarily: for now. We have vast resources, surpluses, and a residuum of collective loyalty and humanitarianism. Neither of those conditions need prevail. Taxes can end both, and there are signs they are working to that goal as I write this.

But I don't imagine "the collapse," the "knockout blow" that Vacca foresees as happening this year or next. So far we have a great deal of survival-surplus in our system, and it would take no miracles to insure against the knockout; but the trend is in the other direction.

Consider. One of the most popular political figures in the nation is Governor Jerry Brown, who explicitly adopts the "Small Is Beautiful," "Only One Earth" philosophy of the Appropriate Technology movement. But surely, Pournelle, the Appropriate Technology movement is the best insurance against the knockout? Making people self-sufficient, in small groups, building communes, reducing the dependency on the system—

If you believe that you'll believe anything. Leaving out whether it's possible, either physically or politically, to insure against disaster by

inducing large numbers of people to be "self-sufficient" (at a convention sometime ask Poul Anderson how he damned near starved as a kid trying to make a living out of a forty-acre farm, and ask yourself how many forty-acre farms there are compared to the number of people living in cities), if the Appropriate Technology movements succeed, *my* world will vanish because they *want* it to vanish. One of their goals is to suppress the kind of technology and development I want. They *like* "labor-intensive" industry, as witness any of their demonstrations (I mentioned last month the Appropriate Technology display of the bicycle-pedal-powered mill for grinding one's wheat to make one's bread).

In fact, we need not envision either war or Vacca's knockout to imagine a world in which my vision of man's vast future remains the ravings of a science fiction writer. Merely continue as we are now: innovative technology discouraged by taxes, environmental impact statements, reports, lawsuits, commission hearings, delays, delays, delays; space research not carried out, never officially abandoned but delayed, stretched-out, budgets cut and work confined to studies without hardware; "solving" the energy crisis by conservation, with fusion research cut to the bone and beyond, continued at level-of-effort but never to a practical reactor; fission plants never officially banned,

but no provision made for waste disposal or storage so that no new plants are built and the operating plants slowly are phased out; riots at nuclear plant construction sites; legal hearings, lawyers, lawyers, lawyers . . .

Can you not imagine the dream being lost? Can you not imagine the nation slowly learning to "do without," making "Smaller is Better" the national slogan, fussing over insulating attics and devoting all our attention to windmills; production falling, standards of living falling, until one day we discover the investments needed to go to space would be truly costly, would require cuts in essentials like food—

A world slowly settling into satisfaction with less, until there are no resources to invest in That Buck Rogers Stuff?

I can imagine that.

I even see trends in that direction. Mr. Carter has said no to plutonium, a decision we could live with; and followed that with an energy message that in a full hour had not one reference to the word "fusion," while out at Livermore and Los Alamos they are laying off people whose entire professional lives have been spent in fusion research. Our President has told us we will have to make sacrifices, but he has given us nothing to sacrifice for. We shall insulate our attics, but mostly we shall use the energy crisis as a means for redistributing income and increasing taxes and increasing

the bureaucracy. (And we shall penalize hell out of those who, like myself and Poul Anderson, long ago insulated and learned to keep our automobiles in tune . . .)

Where is the innovation? The imagination? I expected a lot more from the President's energy message. I expected at the very least a massive research campaign: a Manhattan Project in agricultural research to develop plants capable of harnessing larger fractions of the solar energy falling on them; another to develop means for extracting energy and fertilizer from our sewage and trash; a specific plan to insure the safety of nuclear power plants while also assuring investors that the plants will be built, will not be unreasonably delayed by perpetual hearings and court challenges; perhaps a promise of restoration of some of the funds for fusion research; more funding for the ocean thermal energy system; something for the "slow" breeder, which uses the uranium-thorium cycle and doesn't produce any plutonium and can't be used to make bombs or terror weapons; something. Perhaps not all of the above, but something.

Instead we were promised an income-levelling tax system and told to tighten our belts while insulating our attics. Make do. Expect less. The "spree" is over. There's only one Earth . . .

Now look: conservation is not going to get us to space. At best

conservation can save us about half what is used for space heating: a few years' growth increase. There's nothing wrong with that, but there's not much right about it either. I hate to say this, but the only problem with waste is that it's costly. Suppose, just suppose for a moment, that we suddenly discovered a million years' worth of fossil fuels. Better yet, suppose, just suppose, that we really had workable solar-power systems of great efficiency such that they could supply us with all the power we ever wanted at trivial costs. Would it be worthwhile insulating the attic? Obviously not, unless it could be shown that an uninsulated attic was somehow harmful to the rest of us. There's nothing good *per se* about conservation, and nothing bad *per se* about throwaway cigarette lighters or Cadillacs. It happens that at the moment we may not be able to afford them and perhaps we'd best do without; but surely not having-Cadillacs is a *negative*, not positive goal? Surely not the only possible goal?

But aren't we going after solar power? And won't that ultimately solve all problems? Yes, to both; but we won't get it in time . . . sorry: we *may* not get it in time. Solar power is risky and expensive technology. It is inevitable that some form of it will eventually power the Earth, but that may take far longer than Mr. Carter seems to believe.

Freeman Dyson: "In the very long run we must have energy that is clean and perpetual. We shall have solar power. In the long run we must have energy that is obtainable and available in large quantities. We shall have fusion. In the near term we must have energy that is now available. We have fission power. For the present we must have energy that is cheap, convenient, and easily obtained. We have coal, oil, and natural gas. Nature has been kinder to us than we had any right to expect."

I wish I were that confident; but I am not.

The trends, in my judgment, do not augur well for our getting to the long run; and trying to skip the near term and long run and jump directly to the very long run is comparable, in my judgment, to Congress ordering Goddard to send a ship to the Moon by 1935 or give up those crazy rockets.

It could happen: we could spiral down until we have so few surplus resources that Roberto Vacca's knockout becomes possible; to a point where we have little, and many seethe with discontent, and suddenly it all explodes in riots, or war, or chaos; and when we recover from that (some of us) we will find that the business of living takes all our talents and energies; and our grandchildren will curse our memories.

It doesn't have to be that way. Here is another future.

First, war. Consider the following sequence of events. DeGaulle gives China the atom bomb, and when asked why says he has done nothing that Richelieu didn't do: when threatened with a European enemy, aid the Turks (or some other Asian). The Soviets begin a new Berlin Crisis. The Chinese attack a small Soviet island at Ussuri. The Soviets back down on Berlin and begin moving troops in massive numbers toward their eastern frontier. After three weeks of buildup they retake the island. The Chinese glare at them across the river.

Marshall Gretchko goes to diplomatic parties and makes dark hints. In ten days there may be nuclear war. He hopes the West will understand. The West makes no response at all.

The Soviets discover their nuclear weapons are very dirty: following atomic war with China most of the population of Japan may die from the fallout. In the U.S. knowledgeable people get out their Bendix fallout radiometers and dosimeters and buy new batteries for them and make a few other preparations.

More Soviet troops move to the East, a massive deployment until over a hundred divisions are on the Chinese border.

Henry Kissinger takes satellite photographs of the Soviet deployment to China. Ping-pong teams begin moving back and forth. Lin

Piao, the most dangerous man in China, dies in mysterious circumstances that may never be known to westerners.

Nixon goes to China.

It all happened, in that sequence. Add this: a few years later the Soviets declassified their fusion research and brought the bag over here in the hopes that we could make use of it. (We immediately classified what they gave us, putting a blanket over the blackboard.) Soviet experts privately say their need for fusion energy is great; they have a lot of development to do. They also build a fast breeder fission reactor based on US technology (we have yet to build one, of course).

Suggestive of what? This much: that at least some officials in the Soviet Union are now convinced that the struggle with nature has a higher payoff potential than conquest; that they couldn't run China when they had it, and can't now; that if their system were introduced into western Europe (Hungarian joke: "The Soviets have crossed a cow with a giraffe to produce a marvelous animal that feeds in Budapest and is milked in Moscow") European production would not only fall, but the Soviet economy would be worse off.

Give it a couple of generations and possibly, just possibly, the dinosaurs will die. It will take skillful diplomacy by the West, but it's possible. If we can discourage the di-

nosours until the technicians are in control of the Soviet Union, then we will have peace. My private opinion is that the best way to discourage the dinosaurs is to remain so strong that they can have no expectation of winning—Cato's advice. "If you would have peace, prepare thou then for war." I realize that is not universally accepted among the ruling elite in the U.S., nor even among *Galaxy* readers.

But assume the dinosaurs are contained, and the trends toward cooperation continue. One threat contained, anyway.

Next, the energy crisis. Is Carter playing a devious game indeed? Today's headlines say that there will be no special breaks for California: we, too, must cease to burn oil and natural gas for electricity, despite the fact that we *can't* meet our air-quality needs with coal; which means that California has no choice but to go nuclear (which the people of the state, by overwhelming majority, opted for in every referendum ever held here); which means that Congress *must* remove many of the legal barriers to getting nuclear plants licensed; which means that power utilities all over the country will again seriously consider the nuclear option. Could Carter intend that?

I haven't the foggiest; but it's one scenario that takes us past the energy crisis. Then, too, not *everyone* in Congress is a congenital moron; there must be *someone* in

Washington who understands that railroads are several times more efficient per ton-mile of goods moved than trucks (First Law efficiency) and that if we (1) deregulated the railroads, and (2) charged trucking firms the real costs of operation including maintenance of the highways and a portion of the investments sunk into them, we would save more petroleum than we could save by insulating every attic in the nation to a depth of three feet . . .

And what the hell, maybe the Western States' senators will get part of the fusion research budget restored. After all, Carter backed down on cancelling all those waterways plans, particularly in the states like Louisiana whose senators sit on powerful committees; and it's even possible that someone will appreciate the need for the research without regard to electoral politics. Isn't it? But as I write this they're laying off engineers at Los Alamos.

Suppose, though, that we get fusion research so that by 2000 we have working reactors.

Meanwhile, the ocean thermal systems I like: at the moment they're getting paper-study money only, and although it's widely announced that a demonstration plant will be built by 1985 the fact is that nothing beyond paper has been funded; but suppose the money comes to bend tin and cut metal, and that a plant is built. It won't be commercial, but from it we should learn how to make commercially vi-

able plants; and we can build research stations, as described in my story "Extreme Prejudice" (reprinted in my collection *High Justice*, available from Pocket Books).

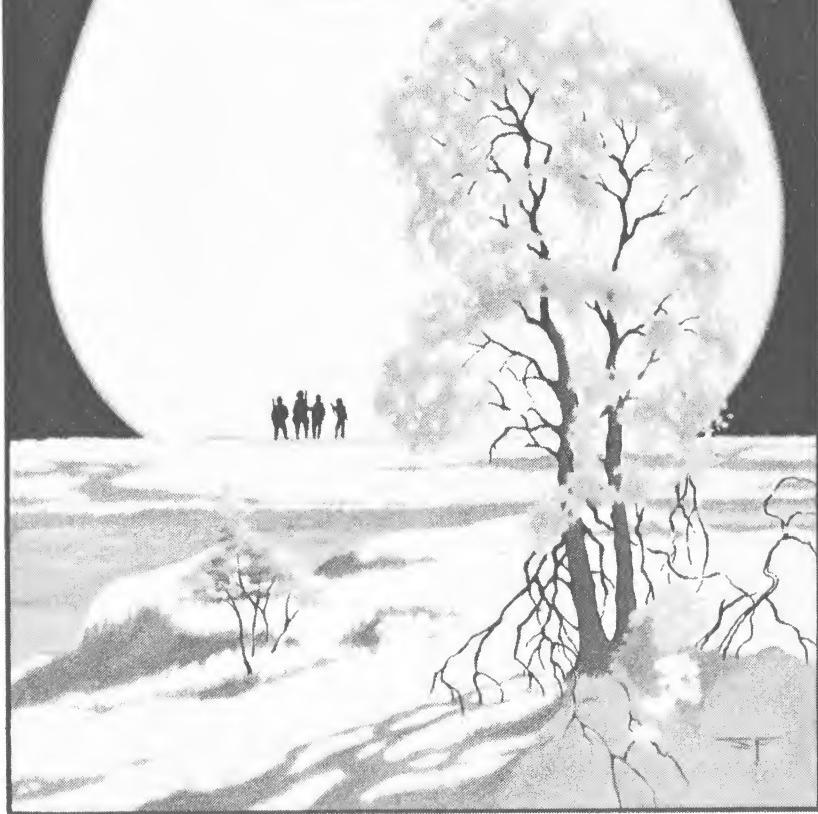
Next, let us suppose that either through political pressure from such groups as the National Space Institute (dues \$15 a year, \$9 for students, 1911 Fort Myer Drive, Arlington, VA 22209) and the senators from California, or through genuine insight by our masters, the Shuttle program is continued and *Enterprise* actually goes to space; that commercial firms are given the opportunity to rent time in orbit at reasonable rates. Profits flow.

Finally, suppose that either through direct government action, or through reduced taxes to allow accumulation of research and investment funds in the private sector, we get decent biological technology: plants that double their efficiency in converting sunlight to usable energy. The computer business, already leaping ahead, does its thing. We inject some rationality into the transport system. People are led to expect *more*, not less, and are told that if they work a bit harder they can have it.

It's a possible future. Isn't it? If it's not, don't tell me; because I want to believe that I have a chance; that I may live to see that world I describe in my lectures; that before I die I can say, "My generation gave mankind the planets and the stars; and I was part of it." ★

GENTLY RAPPING

Charles L. Grant



Nobody likes to be ignored!

GIDEON'S MEADOW was deserted. The last paying tourist to set foot on the rolling, low-mown grass had left in disillusionment some months before and now only the crows remained to play at being ravens. They glided darkly from the surrounding woodland, silent and wheeling, sweeping effortless arcs across the lea toward the rise in its center. They paid little attention to the distant clouds glowering in shades of grey, ignored the white picket fence that surrounded, and marked, the knoll. They landed, pecked, rose again to the beat of the wind. Silent. Ominous. Driving farther into the Maryland hills, away from the twilight that reminded spring of winter.

But before they went, four men stepped out of the trees and paused on the edge of the broad open space. The tallest and eldest of the four glared at the birds, and his hands suddenly clenched tightly at his sides. His chest swelled, his eyes narrowed, and it was a long and anxious moment before he calmed.

"Now that is a hell of a view," Colonel Feirday said, sneezing into an olive drab handkerchief Major Simmons shoved into his face.

"Bless you," the major said, and handed the soiled cloth to Captain Hawkesworth.

"There aren't many places like this left anymore," the captain said. "Too much civilization, as the man said. Not enough trees. Why, I had a dog once—"

"As did we all," General Titus Jenkins said, stepping away from the others to gaze at the knoll. "As did we all. One way or another."

The three officers glanced at one another, concern for their leader and the weather sobering their initial holiday spirits. Finally, after receiving a few surreptitiously commanding nudges, the captain sidled next to the general and cleared his throat with a convincing cough.

"Sir," he said, almost reverently, "you don't have to do this, you know. What I mean is, we all realize what Gideon's Meadow means to you, and we don't wish to intrude on memories so obviously painful."

"We could have had the stars," the general said. "Right here in this damned cow pasture we could have had the stars."

"And Cynthia," the major whispered.

"Yes," the colonel said, sniffing. "And Cynthia."

"Cynthia," the general said with a distant look, "was . . . was my

problem, and my . . . loss. But mankind, gentlemen, could have had the stars!"

"Perhaps another time," the colonel said pragmatically.

"Our children, maybe," said the major. "All is not lost, sir. You've said so yourself many times. All is not lost."

General Jenkins said nothing. From what he heard from his staff, he wasn't at all sure Simmons was in any position to spawn, and he knew for a fact that Feirday's wife had vanished with a Quartermaster Brigadier not two years ago. The rumors that she had been soft-soaped by promises of riches did not sway him. No, neither the colonel nor the major would ever produce progeny—but the thoughts were what counted, sincere and determined; and if he had anything to say about it (despite the National Security and Reclamation Act), the world would long and damned well remember what it had lost, perhaps permanently, a decade before. But only, he reminded himself, perhaps. He shook himself, and then, supported by the captain's arm, advanced across the meadow toward the white picket fence.

"Where shall I begin?" he mused. "So many things, so many dates."

"The spaceship," the colonel prompted.

"Cynthia," the major suggested, coughed, and changed it to "the music."

The captain tripped over a molehill, and the general held him until he regained his balance.

"The President," he said firmly. "I recall vividly it was the President who called me that morning. He was rather agitated. Blathered something about trespass and violations and matter of that nature. I assured him my subordinates could handle such routine nonsense, but he insisted on having me or no one at all. I could see from the vine screen that he was still in his pyjamas. Little furry creatures running over his chest. I knew then he was bloody angry. He never lets anyone see his pyjamas. And he kept insisting I had to handle the situation for him."

"Foresight," the colonel said, searching the grass for signs of cows.

"Prescience," the major submitted as he watched gloomily while his spitshine faded.

"Luck," the general said. "I was between sensitive assignments and free of command. I agreed, of course, even though it was a miserably hot day, humid and all that. It was a Saturday in June and my old Fleetwood Turbine was acting up something fierce, so I had to suffer a ride in one of those blowhard hoverthings. Dreadfully dusty, if I recall, but damned smooth no matter what the road was like. We, my aides and I, arrived precisely here just before noon. In fact, we took the same trail—if you can call it

that—that you and I did today.

"And there it was, gentlemen. Bold as brass and twice as bright. An incredibly beautiful machine, and completely incongruous in this bucolic setting. A party of advance chipmunks was trying to establish relations, as I recall. Suspected it was one hell of a nut, no doubt."

He laughed wheezily, and the others joined him until he shook his head sharply and they stopped as if choked. He grinned and covered it with a thin-fingered hand. Then he reached down to pluck a lonely daisy, spinning the crown until the petals blurred.

"It was approximately eighty-six meters in diameter, shaped very much like a slightly flattened egg. There were no ports that I could see, no exits; it rested solidly on its base. Unless, of course, it had landed upside down—but we naturally had no way of telling. A forbidding sight, I'll grant you, but intriguing nevertheless. The local police had at least had the professionalism to post a guard to keep snoopers away, and I immediately ordered them replaced with military observers. Once the pictures were taken, we set up a headquarters tent over there by that gopher hole. Comlinks, staff, decanters of bracers . . . rugged, but comfortable.

"Our initial speculations centered around our friends and co-existents, believing it entirely possible that one of their aircraft was missing on a routine espionage flight. No luck

there, however. After we had checked through our own files in the basement, we concluded that what we had almost in our hands was the first tangible proof that there was, in fact, interstellar flight. And after we'd double-checked our Lunar radar scans, I no longer doubted."

"History had been made," the colonel said.

"But what about Cynthia?" the captain asked.

"Well, I don't blame you for doubting," the major said loudly.

"I never doubted," the general corrected himself.

"I told you he didn't," the colonel said, and rested a hand gingerly on the fence, leaning forward as if his staring would bring back the scene that morning.

"First crack," the general continued, "went to the scientist types who worked night and day for weeks to breach that devil's universal secrets. They had conferences and symposia, workshops and brainstorms, used up more time on the computers than France did on the Germans. Weeks.

"But that *thing*, that alien machine, did nothing to aid us. It just squatted there.

"It was exceedingly, damnably, frustrating, gentlemen. We tried bombarding it with every known radio wave in the spectrum, then twiddled the dials to mix things up a bit in case we were missing a bet. We rapped on it, used lasers to burn it, chisels to chip it, acids to eat it.

Nothing. Why, right over there by that willow is the exact spot where Dr. Polter set up his ten-meter screen to flash pictures at it, in case someone was watching. Mathematical equations, celestial maps, formulae, anything at all to get a rise out of that sneaky, secretive thing. But none of it worked. There was no response, none at all, and a few of the boys were literally tearing out their hair in desperation. Frankly, we didn't have a clue as to why the hell they were here at all!"

"Invasion, of course," the colonel said.

"Cultural shock," the major judged.

Captain Hawkesworth's uncle, attached to a defunct CBR unit at the time, had suggested to the press that the Army and the Government combine forces to set up a turnstile and souvenier booth, and sell tickets. With a few artful spotlights and a shill or two, he'd said, we could ease the imbalance of payments, then sell the thing to the movies on an option/cost basis. Though his enthusiasm for the capitalistic process was applauded in Congress, he was quietly transferred to a base in Idaho where he died ten months later of starch inhalation.

Hawkesworth, therefore, said nothing.

"Invasion, cultural shock, xenophobia," the general listed. "We considered all of these and more. But what use were speculations when there was nothing we could do

to breach the walls of silence that encircled that spectral device? Finally, five months after its discovery, the President instructed me to forsake the normal paths of discussion and experimentation and get some kind of response from that goddamned thing. I agreed readily. It was but my duty, and I hated recalcitrant and alien problems.

"So I began to read, widely and wildly, immersing myself in psychologies and anthropologies. I spent hours alone here just thinking, wandering, wondering how in hell you talked to a piece of egg-shaped metal. I conferred with astronomers and astrologists, writers and artists, and all I could come up with was that we had a problem. Great. A bloody damned spaceship in the middle of this meadow, and the greatest minds in the world could only tell me we had a problem.

"But, gentlemen, I was determined. Steadfast. And finally, by the following July, I was ready. Yes, I know it sounds immodest, but I was truly ready, as ready as I and the world would ever be to storm that mighty citadel. Dramatic? Perhaps. Only time would tell."

A sudden gust of wind made him squint, turn his head back to the woods he'd just left. When the air calmed, he motioned to the others and they sat on the ground, their backs to the knoll. Clouds hovered. The colonel reached into a breast pocket and pulled out a vari-colored slick brochure his command had

prepared when the Secretary of Defense ordered mobilization of opportunity—if the aliens wouldn't talk, we might as well sell tickets.

The general saw the brochure being passed to the captain. He frowned.

"Hawkesworth has been through a lot, too, sir," the colonel said timidly. "His uncle . . . well, sir, I thought he'd like to have a souvenier. Just so he'll know his family was vindicated."

"Ah yes," the general said, and smiled at the younger man. "I remember your uncle, Hawkesworth. He saved my life once. On the Moon. A good man. A little heavy, but a good man."

"Thank you, sir," the captain whispered, and brushed a hand across his eyes.

Then, over the distant hills, a cannonade. The wind grew colder.

"There were four of us," the general said in a somber voice. "Vic Jennings, Jake Holmes, myself, and . . . Major Duncan."

"Cynthia," the colonel breathed, and sneezed.

"Careful, sir," the major said.

"Sir, please . . ." the captain said worriedly.

"It's all right," the general said, swallowing gamely. "The Major and I were comrades-in-arms, as well as close friends. A slight woman she was, not as much meat as I would have liked, but nevertheless a proud and strong person. We talked quite a bit, dear Cynthia and I, as

we walked about the spaceship, prodding and probing until our brains grew weary. We used the night for cover, of course, and very often would lie on the grass with chins in hand, simply staring at that hulking beast. I once suggested, in an entirely professional manner, of course, that she tear off her uniform in the appliance of her duty and entice the aliens out with a bit of tantalization. I remember . . . I remember how she laughed—the cruel would say she brayed—and called my bluff. It was an intriguing sight, gentlemen, that WAC major prancing about quite literally out of uniform. But to no avail, no avail." His eyes lost their focus, then, and the captain looked to the others, who only shook their heads solemnly and crossed their legs to wait for more. "No avail, as I said. A game girl she was and knew where her duty, er, lay. And so it was that come the next dawn we assembled the rest of the team, leaving frivolity behind, and throughout that long winter we worked our bloody asses off until we were ready to strangle each other. If it hadn't been for Cynth—Major Duncan, our sanity would not have lasted beyond the first week.

"We argued, we fought, stalked out and came back. And then we were ready, as ready as we would ever be. Auspicious. It was the Fourth of July: Cynthia's birthday. The area here was cleared completely, and at first light we moved

to the treeline. The spacecraft was alone, glinting feverishly in the dawn's early light. We smiled, then, because a crow sat atop it preening, and I whispered to the others that we had ourselves a sign, an augury, feathers for our caps. We were dressed in the latest camouflage garb, with packs on our shoulders. And Jake carried the laser—we were taking no chances that day, no chances at all.

"Yet, we had our orders, and sensible ones they were: don't start anything the world couldn't handle.

"At a nod from me we positioned ourselves at the four major points of the compass, ten meters distant from the ship, connected tenuously by a comlink pinned to our lapels. The plan called for vocal bombardments beginning precisely at 0622, moving on to physical assaults fourteen minutes later, and concluding with visual tactics at exactly 0700. By that time, gentlemen, we would have exhausted our first line of offense. Next would come the final solution."

"Brilliant," said Feirday, squirming.

"I love it," the major said, watching the approaching storm.

"But it was fated otherwise, wasn't it, sir?" the captain dared, and was kicked in the ankle by the anxious major.

The general nodded and began plucking petals from his daisy. "Fate it was, Hawkesworth, or perhaps the sheer perversity of the

universe. At any rate, at the appointed time Jennings, with the aid of a clever adaptation of a larynx modulator, commenced the Gettysburg Address; Cynthia whipped out her subtonic jew's harp and played her way down the Ohio; Holmes gloomed through Dostoevski; and I . . . well, as my Air Force inferiors would have it, I winged it. Having no special artistic skills to draw on, I had planned to whistle, but when a soldier ant found clever access to my shin, I just cursed a lot—a good trooper always knows when to be flexible, you understand.

"The physical assault commenced all too soon for my wearied nerves, yet we moved right into it without a hitch. That alien bastard knew his stuff, however, and once again we were stymied. Holmes' laser made attractive but short-lived designs; Jennings' fast-ball rocks merely bounced to the ground like bloated pebbles; Cynthia's finely-tuned darts were blunted, and my faithful automatic simply grew too hot to handle. It was, as some bald king once said, a puzzlement. But we were not daunted, nor were we deterred. Instantly we launched into Phase Three: I skipped over to Jennings who cartwheeled magnificently to Cynthia who backpedaled skillfully to Holmes who delicately but manfully pirouetted to me. And round and round we went until the appointed 0700."

"Nice try," Feirday said, squashing a spider.

"It was, it was. And the thinking was truly elementary. And, I confess for the first time, mostly a product of Cynthia's willing to gambol. It was so obvious that we all, save for her, had overlooked it: if what we had was an actual alien thing, then all the knowledge in the world would not be able to penetrate that 'saucer.' After all, if we couldn't understand our own passions and prejudices, our own kind completely, how the devil could we honestly expect to understand something we couldn't even understand? Clever though the scientists and other Services might have been, they knew too much—and by knowing, knew nothing. Thus, she reasoned, we must not act intelligently at all, but rather in a random fashion most amenable to confusion. Confusion would confound. Confoundedness would produce curiosity, and curiosity, as we all know, leads to discovery.

"It hasn't been told until today, my friends, but I actually had very little hope for the initial phases of our assault. I considered it more of a warm-up, a batting of the plank over the jackass's head. So to speak. And no disrespect. We were merely readying ourselves for the main attraction."

"Which was?" the major asked, holding up a palm to test for rain.

"Nothing."

They applauded.

"That's right, gentlemen. Nothing. Nothing at all. Look at it this

way, if you will: we'd been surrounding and pounding on that miserable chunk of space garbage for over a year. People crawling all over it, talking to it, praying over it, selling tickets to it. Constant purposeful activity. But purposeful *only to us!* Suppose the devils inside could not make heads or tails of it? Suppose they were scratching their collective crania and thinking they had landed in Nebraska or something? This, they might well have been thinking, is what we traveled X number of light-years for?

"So. The four of us stood there. Simply stood there at attention. As if The Man himself was coming to inspect us from pate to toenails.

"Noon came and went. Midafternoon, and the sun was brutally hot. Various insects feasted on our faces' salt deposits. I amused myself by reciting the Manual of Arms, kept my vision clear by staring at that crow still on the saucer. A breeze succored us momentarily. A robin considered nesting on Cynthia. And as night began to fall, dew formed on our epaulets.

"Even then my knees weren't what they used to be, I can assure you; I was proud of myself at that moment when the moon came over the mountains. Damned proud! The tiny tubes snaking from my pack into my mouth provided me with suitable nourishment, the other tubes trailing behind me provided adequate egress, and only an occasional passing wind broke through

the meadow's silence. And through all this, I was proud because I knew we would win! We were about to make first contact with the first naturally intelligent race our kind had ever come across. Why they picked our nation we may never know. The luck of the draw, atmospheric conditions, density of population centers . . . who knows? But they were here!"

He stood suddenly, throwing the others off-balance. Quickly, they scrambled to their feet and followed as the general swung his legs over the low fence and strode to the top of the knoll. The colonel, sensing something dramatic, held the others back, and they waited, watching as the general solemnly paced the area once occupied by an alien craft. A moment later he snapped a finger to his thin mustache and doffed his hat, tucking it under his left arm and folding his hands before him.

"It was here, gentlemen, where I now stand. And it was here that we . . . no, that I, and I alone, lost the battle, and my WAC Cynthia."

The colonel bowed his head.

The major repressed a sigh.

The captain sniffed once and stared at the imposing frail figure elegantly backlit by the thunderheads massing above them. The ever-rising wind tore at the general's greying hair, whipped at the tails of his uniform tunic.

"We had specially prepared braces," he said, his voice lifting to be heard over the gathering storm.

"They supported our legs when the going got rough. I had been in many a parade ground ceremony before, but nothing like this had ever tested me so."

He swallowed and licked at his lips. "I remember it all too well. It was coming on four when suddenly a persistent tapping flickered across the meadow. At first I thought it was my stomach protesting its fluid diet, but when I felt the ground trembling ever-so-lightly beneath my feet I knew . . . *I knew we had done it!* We had confounded the stellar denizens, had spurred their appetites for the accumulation of our knowledge. Somewhere within that slip of a ship a gear was revolving, a widget sprocketing, a footprint (or whatever) pounding. Soon, I thought, a door would open and the planet would be united in frenzied celebration of cosmic connection finally achieved.

"The tapping grew louder.

"I grew impatient. And there's no getting around it now, gentlemen: it was I who blew the fuse on your celestial light.

"Me, and that goddamned crow.

"A small aperture opened directly in front of me, about five meters above the outer rim of the ship. At first I thought it was a trick of the dawn's dim light; but soon enough it opened to form what I guessed was what they used for a door. Rigid, old man, I told myself; stay rigid until the time is right. And I did. Chin up, chest out, tubes quiet. I

dearly wanted to shout for joy, for delirium, for ecstasy, but my training reined me in. Instead, I watched, judged, waited and was ready to make the first move as befitted my rank toward the . . . the . . .”

“Courage, sir,” the colonel whispered.

“Courage,” the major echoed.

“Give ‘em hell, Harry,” the captain said, and shrugged when the others glared at him.

The general slowly unfolded his hands.

“Most of all,” he said at last, as lightning ozoned the air, “I wanted to have Cynthia with me, by me, to hear her gasps of delight as she was proved right. I . . . I . . .”

“Easy, sir,” they muttered in unison.

“It flew directly in front of my eyes, obscuring that historic moment but for an instant; but so angry was I that I flicked my eyes to follow its flight, flicked them back quickly when it soared overhead, returned and perched on my shoulder. Not to worry, Titus, I ordered myself; be as a rock or, in this case, a redwood limb. But that bird began croaking and picking at its tail feathers. I couldn’t help it, gentlemen. When it twisted its head about, one wing brushed over my face.

“No matter what is said a hundred years from now, there’s no other explanation for it.

“I sneezed.

“Instantly, the tapping became a

rumbling, a grumbling that grew to a crescendo, and an interstellar light flared forth from that ship’s alien maw. I wanted to step away, but my braces had locked. Locked, dammit, and I was beginning to tilt. Slowly, inexorably, tilting backward until gravity defeated me and I was lying helpless on my back. Staring at the sky. At the spaceship rising rapidly toward the clouds. Not the smoothest take-off I’d ever seen—nothing to cheer about, anyway—but when I twisted my head around, my heart soared into my throat. I was alone. Jennings, Holmes . . . even my darling Cynthia . . . all gone.”

Lightning flashed then, and the sky shattered in thunder.

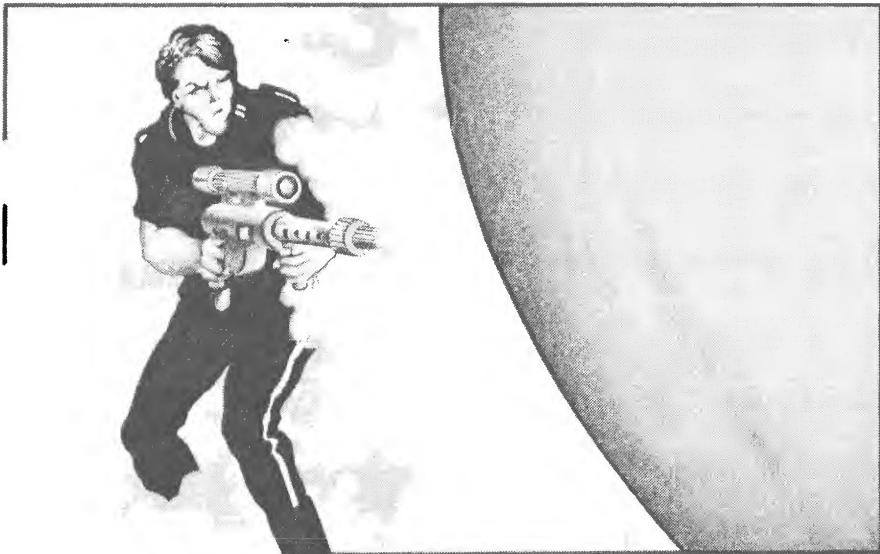
“They were up there,” the general said, pointing skyward. “Taken by the aliens and spirited into space. And I . . . I was a failure. Left behind to explain to the world why I was grounded by a goddamned crow.”

He walked down the knoll and climbed over the fence. The others trailed behind him, and they said nothing until they had reached the treeline.

“They said you sacrificed your own chances for glory,” the colonel offered.

“I heard the speeches; they praised your unselfishness,” the major said softly.

“It was a brilliant plan,” Hawkesworth said. “It was brilliant, and it worked, sir. And you have cer-



tainly given your lovely Major Duncan her due. I'm sure, sir, that your subsequent meditations have discovered that the poet had a word for it, a word of solace for you."

"Right," the colonel said briskly.
"Tintinnabulation, wasn't it?"

"Ulalume," the major corrected.

The general shrugged and gazed back at Gideon's Meadow.

"She'll return," he said finally.
"And they will, too. They'll bring with them knowledge for us. Something, I don't know what, to free us from the plagues that beset our children. I shan't . . . I shan't be here to see it, I expect. But I think you will, Captain. Damn me if I know why, but I think you'll be around when the aliens bring my

Cynthia back.

"But meanwhile, for the record, it's sufficient to know that we are not the only ones stranded in the universe: I have that much at least to comfort myself with when I remember. That, and a slightly used oak leaf."

He turned abruptly and stalked into the woods. Stopped. Made a smart about-face and smiled ruefully at his men.

"Sir?" the colonel said.

"You have something to add?" the major said.

"Captain," the general said, "you're a qualified Ranger, are you not? Do you think you could get us all back to the highway? My map's in the car. I think I'm lost." ★

CAME THE REVOLUTION

L. E. Modesitt, Jr.



**RE-ELECT
JOE SPIELMAN**

Perhaps it is true that occasionally the Tree of Liberty must be nourished with the blood of "Patriots."

RE-ELECT JOE SPIELMAN
HE'S OUR GUY!

Corey Grademan picked the brochure off the desk and held it at arm's length. Spielman's pamphlet showed his open look and flashing smile to their best advantage.

Corey lowered the flier, then tossed it on the desk. It landed face up on the worn blotter.

"So how do I beat Honest Joe? Should I even try?"

He fingered his long chin as he paced around the small room. He glanced over at the flier from Spielman's last campaign, at the gray metal desk, the battered voicewriter and the plain black vid-fax.

* * *

Clem Bunker walked up the empty ditch to the cutoff.

The EPA man was waiting by the headgate. Sheriff Scatt was standing next to the government agent. The EPA agent was holding up a lock

with a government seal. The lock had been cut.

"Mr. Bunker, do you know anything about this defacement of government property?"

"It does look defaced," admitted Clem.

Agent Weisil sighed. "Mr. Bunker, EPA has determined that further irrigation of your land will increase the salinity of the run-off past the permissible return level. You were informed of this. You appealed, and the appeal was denied. Congress passed the law, and you were in violation of that law."

"Takes water to grow beets," noted Clem. "Congress can't pass laws to stop that."

"Mr. Bunker, since you have persisted in diverting water illegally—"

"Wasn't illegal," interrupted Clem. "Family's owned the water rights for over a hundred years."

"Since you diverted water in violation of the Clean Water Act Amendments, EPA obtained a court order to prohibit further diversion." Agent Weisil held up the severed lock. "But you seem to have taken the law into your own hands. If you persist, I will be forced to have the Sheriff enforce the restraining order I have obtained, which will result in your—"

"Okay, okay. I won't add my teensy bit of run-off salt. How am I supposed to grow beets?"

"Perhaps you ought to take that up with your Congressman, since

Congress passed the law," suggested the EPA agent.

"Maybe I will," said Clem.
"Maybe I will."

The farmer turned to the lawman.
"Zack, who's our Congressman?"
"Spielman," spat the Sheriff.

Bunker leaned back against the old cottonwood and watched the EPA agent lock the headgate shut with another shiny government lock. He looked down the length of the empty ditch and at the beet tops drying in the sun.

"Maybe I will," he muttered.
"Spielman."

* * *

The afternoon sun lightened the dim room.

"Corey, you can't do it. It's political suicide." Al Gaston rubbed his hands together.

"What am I supposed to do, Al? Lose?" Corey looked at his campaign manager. "Spielman and I get the same amount of money from the FEC. Except he's been mailing a newsletter a week to the entire district for the past ten years. You know what that costs just in postage? One hundred thousand dollars a year! And the taxpayers pick it up."

"Corey. . .he hasn't sent any during the campaign."

"Oh. . .I forgot. For five weeks every other year he stops."

"Bitterness won't beat Spielman," protested Gaston.

"Al, it's three weeks before the general election. The polls say that eighty-eight percent of the voters have made up their mind, and I'm going to lose by twenty percent. That's what I've gotten from our intensive, gentlemanly campaign. If I keep it up, I can increase the margin of defeat to twenty-five percent."

Gaston picked up a print-out and waved it in Corey's face. "Now you listen to me. You know why no one wages a personal campaign any more? Because they lose! In the last ten years, not one personal campaign, not one muckraking, sling-it-at-the-incumbent challenger has won!" He threw the computer statistics on the desk.

"Al, I don't care. There's no way I can win doing what we're doing. I'm going to make sure every voter in the Sixth District knows everything about Joe Spielman, every rotten vote, every promise. . .everything!"

"Corey, Spielman's not a bum. He's honest. He's never done anything illegal."

"Is promising one thing and voting the opposite honest? Is saying you believe in freedom and enacting more and more regulations honest?" Corey stopped and looked out the dingy window at the setting sun. He could hear the volunteers in the next room stuffing and sealing the endless mailings.

"Corey, Corey. . .you're crazy. You're mad."

"Damned right I'm mad. I'm

mad. I'm sick and tired of Spielman conning the people, and I'm sick and tired of a government elected by less and less of the people. What was it? Thirty percent voted in the last Presidential election?" He leaned against the desk, resting his hand on the vidfax.

Gaston put his hands on his hips and stared at the candidate. "So don't blame me."

Corey looked back. Then he grinned. Finally he laughed. "Hell. . .we're all to blame. But we're going to have some fun for the rest of the campaign."

* * *

The car was cold. Plaudder strapped himself in, turned the ignition switch on. Then he watched the Comp-Meter light up. It flashed four digits. Plaudder responded by tapping four keys. The Comp-Meter flashed green.

Plaudder turned the key. The engine turned over, but did not catch. Plaudder kept the key turned.

The engine coughed once and resumed its dry cranking.

The environmental interlock cut in and turned off the electrical system. Plaudder looked slowly from the ignition switch to the dashboard instruments, still holding the key in the start position. The purple "ENV" light was lit.

"Oh hell," muttered Plaudder.

He turned off the ignition switch and unbuckled the seatbelts. He didn't

want to try another start with the belt buzzer sounding in his ears. He counted slowly to twenty.

Then he turned the ignition switch again and waited for the Comp-Meter sequence. He repeated the four digits the box flashed at him. The green light came on. He turned the key and held it.

The engine began to crank. It coughed twice before the "ENV" light blinked on the dashboard and the power to the electrical system was cut.

Plaudder turned off the ignition, unbuckled himself, counted to twenty, reproved his mental competency with the Comp-Meter, and tried to start the car again.

The car's attempts to catch were cut short by the environmental monitor.

"God damn it!"

Still. . .the car sounded almost ready to start, if only that environmental monster would let it.

Plaudder switched the ignition off, unbuckled and refastened the seatbelts, and waited for the Comp-Meter. He jabbed out the numbers hurriedly. The Comp-Meter glared red and turned off the electrical system.

"Damn you, you rotten hunk of tin!"

Plaudder took three deep breaths, unbuckled the seatbelts, and got out of the car.

Maybe he should have gotten an electroscooter. Diane would have.

His breath was white, even in the

shelter of the carport. He looked up toward Wisteria where the Express Bus was due in fifteen minutes. The streets were still icy. Five or six people were walking up the hill with tentative steps, heading toward the bus stop. Most of the newer cars were parked in the street, or in driveways.

"That should be enough," grumbled Plaudder. He got back in the car, fastened the seatbelts, and turned the ignition switch. The Comp-Meter pulsed its four random numbers on the display screen. Plaudder repeated them on the small keyboard. . .deliberately.

The Comp-Meter momentarily flashed amber, then settled into a green approval.

"You'd better, you damn number box," cursed Plaudder. His toes were getting numb.

He turned the key. The engine turned over. It coughed half a dozen times before it slowed. It stopped abruptly as the purple "ENV" light flashed on the dashboard.

"You miserable bastard!" screamed Plaudder as he hammered his fist on the horn button.

He peered out the frosted side window. He sighed. He gave the inert horn one last thump and picked up his lunchcase. He climbed out and slammed the car door.

He began the cold walk up the hill to the Express Bus stop.

* * *

Jim Westnor stared at the inspector.

"That's right," repeated the man. "This railing has to go. The carcasses will rub against it. That's contamination."

"But we installed the railing because the FSA inspector required it."

"Look," responded the Ag Inspector. "I don't care what the Federal Safety Inspector said. If this railing doesn't go, you don't ship meat. I'll be back tomorrow."

Westnor stalked into the plant, straight for his office. He sat down at the desk and tapped out a number on the vidfax.

"FSA, Mr. Hoagwast's office," whined the strained blond receptionist. He had his hair in the elaborate neo-Roman style.

"Jim Westnor, Westside Meat Packing. I'd like to talk to Mr. Hoagwast."

"Just a moment, sir."

Westnor tapped his fingers on the desk and stared at the FSA logo on the screen. The logo faded into the image of a thin, graying man.

"Hoagwast here."

"I'm Jim Westnor of Westside Meat Packing. Last week you gave us a citation for failing to have a safety railing on our loading dock."

"What's the problem? As I recall, you had it installed when I made my follow-up check yesterday."

"Today we got inspected by the USDA meat inspector. He says that

the Department of Agriculture regs prohibit railings. We're supposed to take it down."

Hoagwast shook his head slowly. "I can certainly sympathize with your problem, Mr. Westside. But I don't have any latitude. The regulations say that you must have a safety railing. I can't make an exception just for Westnor Meat Packing. The regulations say that I must issue a notice of unsafe procedures if you do not have a safety railing—"

"And that closes me down," interrupted Westnor. "But if I don't remove the damned railing, the USDA closes me down as unsanitary. No matter what I do, it's illegal."

"I can certainly understand your confusion, Mr. Westland, but the way Congress wrote the law was very explicit, and I don't have any choice."

Westnor snapped off the vidfax and sat at his desk, still tapping his fingers.

Finally he tapped out another number.

"Gus, can you modify that safety railing on the dock so it looks permanent, but so it can be taken down in about a minute?"

"Sure, boss, but why?"

"Because the damned Congress and the damned bureaucrats have said it's got to be both up and down at the same time. That's why."

Westnor began to sift through the papers on his desk.

* * *

Corey pulled off his gloves and twisted them in his hands. The October wind was cold, especially in the open lot outside the stadium.

People were starting to drive up and get out of their cars and scooters. Corey put the gloves in his pocket and picked up a thin stack of his fliers.

"Hello, I'm Corey Grademan. I'm running for Congress." Corey handed the woman a flier. "I'd sure appreciate it if you'd read this and vote for me."

The woman smiled pleasantly. "Well, I'll read your brochure, but I can tell you, I'm going to vote for Joe Spielman."

"What can I do to change your mind?"

"Probably nothing. If Joe can't change things in Washington after all the years he's tried, I don't see how you can."

Corey watched her drop his leaflet in the nearest trash barrel.

* * *

The balding professor pointed to the blackboard.

"I realize this is old-fashioned. I could flash cue cards or slides in multicolor, but in my old-fashioned way, I am about to make an old-fashioned point. Mr. Wheeler . . . yes, you, I would appreciate it greatly if you would stay awake long enough to hear me out."

He took the long pointer and jabbed it at the letters chalked on the board. On one side were three large F's, on the other side, three large B's.

"Any government in history has been selected, if you will, by the three F's, or if you prefer . . . the three B's."

The professor smiled.

"Most of you haven't the faintest idea what I'm talking about. But let us proceed. The three F's stand for Fraud, Force, and Franchise."

He turned back toward the class.

"Mr. Wheeler, I'll ask you first . . . so you can drop off. What do I mean by Fraud, Force, and Franchise?"

Wheeler looked blank. He stammered, "Well, eh . . . I guess, maybe some governments are corrupt, and some are run by force. . . ."

"Not bad. . . but government by fraud may not be corrupt, depending on the definitions. Mr. Bryan," asked the professor, "what about Franchise?"

"Some sort of privilege. . . only some folks get to make up government?"

"With your name, Mr. William Bryan, I would have expected better."

The professor returned to the podium.

"Ladies and gentlemen, the first and most important definition of Franchise is the right of suffrage, the right to vote. Now," and the

professor gestured around the hall, "when less than thirty percent of the adult population votes, is the question of Franchise more or less important? Why?"

He smiled again.

"I'm going to let you think about that question. You may have it on an exam. You may not."

He jabbed the pointer at the three B's.

"If you prefer B's, then cite Bribery, Bullets, and Ballots. In our history, the use of bullets, except during the Civil War, has been restricted and minimal compared to most other governments. On the other hand, Bribery, Fraud, if you will, has played a far more pervasive role than the most cynical of you realize."

"Laidwin, answer this. Is it Bribery for non-partisan political groups to use their rightful and legal methods of changing public opinion to influence the course of legislation and to create rules and regulations of which the majority does not approve?"

"No, sir."

"Laidwin, you're a fine young man. You're legally correct. Are you morally correct? And more important, are you politically correct? No. . . I don't want an answer now."

"I will leave you all with one more question. What happens to a society where a minority, or a series of minorities, uses its influence to bribe changes in the societal framework which will not and can-

not be accepted by the majority?"

The professor nodded his head at the class. "Good day, ladies and gentlemen."

* * *

Corey looked around the crowd, cleared his throat.

"Friends," started Corey, "all the political books say that you can't win an election by getting personal. All the books say you must be nice to your opponent. . .even if he or she is the biggest hypocrite in Congress. All the books say you have to come up with a positive approach.

"I'm telling you here tonight that I'm throwing the books away. I've spent the last year walking through the Sixth District, listening to you, and to people like you.

"What have you said? You're fed up with more and more rules, more and more government studies that say nothing, more and more taxes.

"You're tired of products that don't work. You can't find doctors. You can't find mechanics. Your kids aren't learning.

"Who's to blame?

"Why, Honest Joe Spielman's to blame. That's who! Here's why.

"Honest Joe Spielman voted for more controls on your car. All those monitors and gadgets? That's right. Honest Joe Spielman voted for them.

"Honest Joe Spielman voted for all those rules that mean your kids

can't get jobs. With a ten-dollar minimum wage, who's going to hire an eighteen-year-old? Honest Joe forgot about that. Ask him about his vote on H.R. 5377. Write him; call him; ask him."

Corey looked out across the crowd, pausing. "Now my campaign manager says I'm going to lose if I make this speech. He says you don't care. He says all you want is more, more, more.

"But I think the American people have had enough of empty promises. Every time the Congress acts, it costs you. Five thousand dollars every time a politician introduces a bill. Twenty thousand dollars a second just to keep Washington running!

"That's bad enough. But when you can't start your car on a cold morning because of pollution control devices, when you can't heat your home two days a week because of fuel controls, when your kids can't get jobs because they don't have experience—and they can't get experience because of all the regulations. . .then it's time to yell STOP!

"How do you stop government? You stop the people who made the laws. You stop the Honest Joe Spielmans who promised everything and gave you nothing but more rules and taxes.

"Maybe you do want more, but the only way you'll get more is if the government gets less. Less regulations, less taxes.

"And maybe I'm wrong. Maybe you don't care. But I think you do. I think you care enough to vote for me. A vote for Corey Grademan is a vote against Joe Spielman. A vote for Corey Grademan is a vote against government. You've said you want less government. Vote for less government! Vote for me.

"Thank you."

Corey stepped back from the microphone. The applause was scattered, less than modest.

* * *

"And now the incumbent Congressman, Joe Spielman."

Spielman got a standing ovation.

In the back of the armory, a Dixieland group struck up Spielman's theme, "He's Our Guy!" Large green and white "Our Guy" posters bounced above the crowd. Dozens of balloons soared into darkness above the girders.

"My friends, it's great to be back," began Spielman. "And although Mr. Grademan and I have a number of differences, we obviously share the same concerns, particularly about the need for more jobs and less government interference.

"No able-bodied American should be without a job. No young American should wander the streets with a diploma looking for work. No American should have to depend on welfare for his daily bread.

"No American should have to

drive an unsafe car; no American should die of cancer because of polluted air and water. . . ."

Spielman flashed his charming smile and held up his hands to quiet and acknowledge the thundering applause.

* * *

"Ah, yes, Dr. Wilhouse. I'm George Hasled. I was impressed with your presentation."

Edmund Wilhouse, Ph.D., Phi Beta Kappa, Norton Fellow, stood up to meet the Chairman of the Political Science Department of West Bayview State College.

"I'm the one who's honored, Professor Hasled."

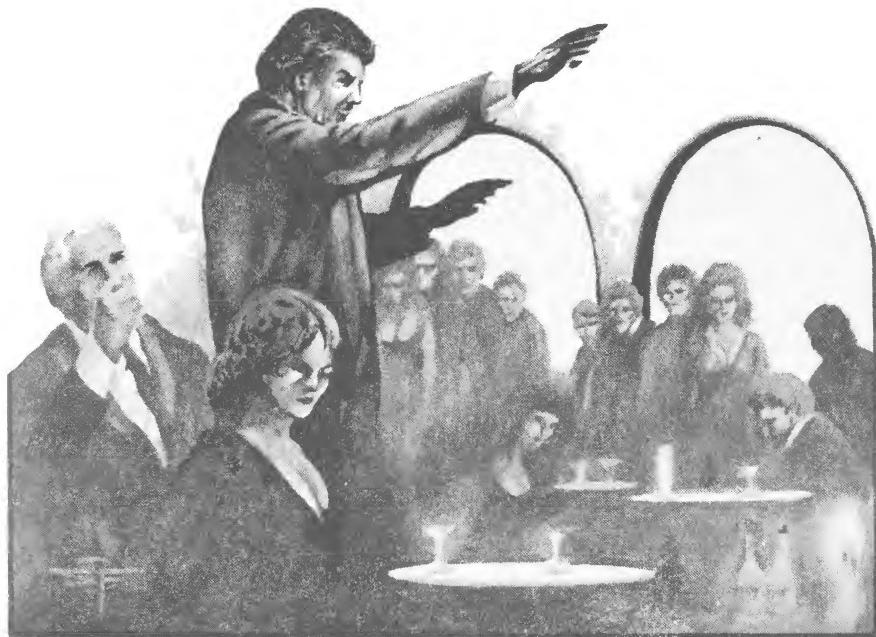
Wilhouse found himself ushered into a small neat office lined with bookshelves. Most of the shelves were empty. A few droopy plants and a handful of books were scattered about.

The Professor plumped himself down behind the desk into an old wooden swivel chair. He took a cigar from the desk humidor and tapped it gently on the desk top.

"Rather than beat around the bush, Wilhouse, I'd rather lay it on the line. First, you're the best black candidate I've seen in a decade, maybe longer. Second, you come highly recommended—"

"But you aren't going to offer me the job."

"That's correct. Not because I don't want to, but because I can't."



lars," added Wilhouse drily.

"That does have a definite effect," added Professor Hasled.

"What about the other candidates?" prompted Wilhouse. "I'd like to know what I'm up against."

"You're number three. Number one has never had a grade less than an A since the fourth grade, is a Rhodes Scholar, has had three books published, one of which made the best-seller list for non-fiction, and was rated the best teacher of the century at Palmdale Junior College. He also has other credentials, such as being a former all-American soccer player and having a number of off-Broadway acting credits. Why he even wants the job beats me."

"The Supreme Court rulings?"

"That's right. According to the College's legal department, I must offer the job to the best candidate, regardless of race, color, creed, sex, or age. . . as determined by objective standards.

"As you know," the Chairman went on, lighting the cigar, "this will be the first vacancy in the Department in five years. I do not expect another, barring accidents, for at least three more years. With the decline in school enrollments and the emphasis on more, shall we say, functional curricula, there's little demand for Political Economy as a major any longer."

"Particularly when each year of college costs thirty thousand dol-

Wilhouse couldn't help shaking his head sympathetically.

Hasled looked at the young black. "You know... it's crazy. I never thought I'd be turning down a Norton Fellow with a Ph.D., a Phi Beta Kappa as well... not for a job that offers as little as this. You know... I've taken a look at your background, Wilhouse. You have a good stat base and the brains to succeed in either government or business. Why don't you try it? This place is a madhouse. Old professors hanging on to tenure, with no place to go, almost no one to teach to. I'm the best of the worst."

He took another puff on the cigar. "You know... we never applied our own disciplines to ourselves... and no one else took us seriously."

The professor stood up. "I wish I could offer you the job. Lord knows, you deserve it more than the rest of us here, but I'm not ready to leave and not gutsy enough to strike out again."

Wilhouse walked out of the dingy building, slowly, hands in his pockets.

* * *

"And now, without further introduction, Corey Grademan."

Corey stood and moved three chairs to the left to take the rostrum.

"Most of you are small busi-

nesspeople. You're busy individuals, and you know a lot about your businesses, and how hard the government can make it on you."

Corey surveyed the tables, saw the quiet nods.

"Now... conventional wisdom would demand that I rail against Washington and bureaucrats especially. I won't.

"I'll just say this. Every single bureaucratic power has been given by Congress to the bureaucrats. That's why I'm running against Honest Joe Spielman. Honest Joe has voted for virtually every piece of legislation to create more regulations.

"For example, he voted for the Federal Safety Act. In case you don't remember, that's the follow-on to OSHA. FSA gave the federal government the right to close down every business in America without a warrant.

"Honest Joe Spielman also voted for the Consumer Protection Act. And in case you don't recall... that's the one that says you have to refund the customer's money no matter what he did to the product or how he misused it.

"That's all I have to say. Honest Joe says he's for you. He's never really voted for you, but he's for you. I don't think he is. And that's why I'm running and why I want your vote. Thank you."

Corey saw the stunned look on a few faces. Only a few gave approving nods. No applause.

* * *

Plaudder slipped twice on his way home from the bus stop. His elbow still tingled as he opened the front door. The damned car hadn't started half the mornings in October.

He picked up the flier that had been stuffed in the mail slot.

ARE YOU TIRED OF
CARS THAT DON'T START?

ARE YOU TIRED OF POLITI-
CIANS WHO SAY ONE THING
AND VOTE ANOTHER?

ARE YOU TIRED OF MORE
REGULATIONS AND LESS
FREEDOM?

ELECT COREY GRADEMAN
. . . A NEW FACE

REPLACE JOE SPIELMAN
. . . Turn The Page And See
Why.

Plaudder read the brochure from cover to cover.

"So Spielman voted for the airbags, did he?"

Plaudder looked at the picture of Diane on the mantle. Two years ago, but it seemed like yesterday.

He went to the refrigerator and pulled out a beer.

"So Spielman voted for the airbags. . ."

Plaudder looked at Diane's pic-

ture again. Then he began to sip the beer.

* * *

Corey looked around the fair-grounds. His vinyl boots were covered with mud. He was still smiling as he passed out literature to passing farmers.

He handed a brochure to a wrinkled man. The man looked at it, tossed it onto the mud, and stared at Corey.

"Why you running against Honest Joe? He's always been a friend of the farmers."

"That's what he tells you," answered Corey. Several other men moved closer.

Corey jabbed a finger at the farmer, who stepped back.

"You say Honest Joe Spielman's your friend. Honest Joe Spielman voted to impose the export bans on soybeans and wheat. Did that help you?"

Corey pointed at another farmer.

"Honest Joe Spielman voted to increase the powers of the EPA to shut off irrigation if the EPA says so. How many farmers does that help?"

Several couples joined the audience.

"Honest Joe Spielman says he's against gun control. But Honest Joe Spielman voted to restrict gun ownership."

Corey surveyed the ten or twelve onlookers before continuing.

"All of you. . .I'd like to ask you a question. If Joe Spielman votes against you so much, why do you vote for him?"

"Cause he's a friend of the farmer. He voted for price supports," responded a man near the back of the crowd.

"You wouldn't need them if the government weren't controlling the export market and cutting back irrigation and sending safety inspectors out on every farm in the country." Corey stopped. The group was drifting away, all except one man.

"Young feller, name's Clem Bunker. What you said about Spielman's votes true?"

"Yes, Mr. Bunker, that's the way he voted. If you want, I can even dig up the bill numbers and the dates."

"Don't need that. You have them. . .that's fine." Bunker looked at the candidate. "Son, you're not going to win." The man pointed at the backs of the departing farmers. "They think they're fine so long as Uncle Sam shells out the subsidies. But keep on preaching. Some of us are listening."

Bunker smiled at Corey and headed toward the livestock ring.

Wilhouse flipped from viewer channel to viewer channel. He ended up facing Corey Grademan.

"Honest Joe Spielman has opposed good education by supporting

the mandatory tenure clause of the teachers' union. No matter how old, or how incompetent, a teacher keeps a job forever. Does your child get the best teacher? Of course not, but Honest Joe Spielman doesn't care about that. . ."

Edmund Wilhouse turned off the viewer.

"So Spielman supports mandatory tenure," he murmured as he went back to the tedious business of checking university addresses.

"That hypocritical son of a bitch."

Plaudder knew the two by the cooler.

"Hey, Bob."

"Morning, Sam, Jim."

"Hey, Bob, you missed Spielman. He just came through here. Man, he's one sharp politician. . .even remembered how Gladys worked in his campaign four years ago."

"Handshaking isn't everything," muttered Plaudder.

"What's got into you, Bob?"

"Spielman voted for air-bags." Plaudder turned and headed back to the machine shop.

Let them talk, about the freak accident, about Diane, about the faulty air-bag in the other car. Let them talk. Spielman voted for air-bags.

He began to set the jigs.

Let them talk. Spielman. Honest

Joe Spielman. Diane. Air-bags.

* * *

Clem Bunker pulled the rifle from the mount in the pickup cab, loaded it carefully, and checked the safety.

He closed the pickup door and, still carrying the rifle, began to walk toward the barbecue on the other side of the fairgrounds. After a time, he stepped into the empty exhibition building and went to the far side. Through the open slats he could see Spielman mingling with the crowd.

Bunker steadied the rifle on the ledge, picked up Spielman in the sights. He held the politician in the sights for a long time. Then he sighed and put down the gun. He slid the safety on and walked back to the pickup.

"I couldn't even shoot a damned skunk," he muttered as he replaced the gun in the cab mount.

* * *

Jim Westnor picked up the mail. It had fallen on the hall floor when the mailperson had shoved it through the slot.

He leafed through the stack. The repair bill for the wall viewer, an advertising card from a new men's store specializing in the gay look, a campaign brochure . . .

Westnor looked at the date on his watch. He could go vote.

CAME THE REVOLUTION

He dropped the mail on the table, all except the flier. He read the cover as he went out into the apartment hallway.

ARE YOU TIRED OF
CARS THAT DON'T START?

ARE YOU TIRED OF POLITI-
CIANS WHO SAY ONE THING
AND VOTE ANOTHER?

ARE YOU TIRED OF MORE REGU-
LATIONS AND LESS FREEDOM?

ELECT COREY GRADEMAN
. . . A NEW FACE

REPLACE JOE SPIELMAN
. . . Turn The Page And See
Why.

Grademan. . .he was the young fellow who talked to the Small Business Club.

Westnor scanned the pamphlet as he walked back down to the garage.

So Honest Joe Spielman was one of the originators of FSA? So Honest Joe Spielman opposed a lower minimum wage for teenagers? That might have helped Ted, given him a chance. If he'd had a chance at a job. . .Westnor crumpled the flier and jammed it into his pocket.

He marched across the garage to the electroscooter and yanked open the door. Westnor threw himself into the seat and slammed the door.

* * *

Plaudder picked up Diane's pistol. She'd always kept it in the bedside table. He'd moved as little as possible.

Plaudder took out the box of shells, methodically loaded the gun, and set it on the bed, the barrel pointing at the headboard. He put the shell box back in his top dresser drawer. Then he checked the safety again and eased the gun into the deep overcoat pocket.

He looked in the full-length mirror for a long moment before going out the bedroom door.

* * *

Westnor opened the apartment door. Betsy was still watching the early national returns on the wall viewer. Her drink was sitting on the table, untouched. He slipped open the closet door and hung the heavy coat on a hook.

"Jim, that didn't take long."

"No... I just ran down to the Quik 'N Go. They've got soda there." He gestured to the wall screen. "Anything interesting yet?"

"No. I was surprised to learn you voted. You never do. And now you're asking me about the election returns."

He grinned weakly. "I'm sort of surprised myself. But I had to make some sort of gesture after I found out...oh, never mind...long story."

He went into the small kitchen and poured a triple scotch with a

dash of soda, then came back into the living room and sat down in the easirocker next to hers.

"You've been running all over tonight, Jim. It's not good for you. First, you run out and vote. Then you come back and throw dinner together. Then you run out to the store, and now you've poured yourself a triple to relax. Now will you stay put and simmer down?"

He sighed. "Yep. Yep. For a few minutes, anyway. How was work?"

"Fine..." Betsy held up her hand and pointed to the screen.

"We're going to turn you over to our affiliated stations for fifteen minutes of local returns. We'll be back at ten."

The viewer screen beeped several times, flashed red, and turned gray. Then a PLEASE STAND BY appeared.

"We seem to have lost the picture, but we have an urgent bulletin from Spielman Headquarters. George Kortine is there. George, we've lost the video. Can you hear us?"

Westnor leaned forward in the easirocker.

"Yes, Cathy, I can hear you. It's a madhouse here! Joe Spielman has been shot! Joe Spielman, just re-elected to his sixth term, has been shot by an unknown assailant. We don't know much, but apparently a man walked up to Spielman to offer congratulations and shot the Congressman several times with a concealed weapon."

"I repeat, Joe Spielman has been shot. We had just predicted his victory not fifteen minutes ago."

The picture swirled into focus on a thin black man, then shifted to show several police holding a crowd back from a prone figure. A woman and several men were kneeling around the body. The woman, the doctor, was working on Spielman.

"In the confusion the suspect escaped. No one we've talked to even saw the man."

The picture shifted back to the black reporter.

"This is George Kortine at Spielman Headquarters. That's all we have for now."

Betsy turned to her husband. "Isn't that near here? That must have been why there were so many sirens just before you got back."

"There's some sort of political office in the building next door," began Westnor. "Do you think that's Spielman's place?"

Betsy looked at him, then turned back to the screen.

Westnor got up and went into the front hall. Betsy was still glued to the screen. He opened the closet and eased the gun out of the coat pocket. He moved into the bedroom and sat down on the bed. He emptied the six unfired shells from the chambers and put them back in the box.

Then Westnor put the gun back in the drawer. He shook his head. He looked up.

Betsy was standing in the door.

"Jim?"

"No. Didn't have to."

He got up slowly and walked back to the living room to watch the rest of the returns. Betsy sat down next to him.

* * *

Quinn Dolbert was studying the tables Brown Glorian had sent up from Research when the desk vidfax buzzed. He tapped the acknowledgment stud.

"Dolbert." He looked in the screen to see Sarah Yee, the Senior Editor, impatiently gesturing with her pencil.

"Quinn, you're doing the statistical wrap-up on the elections?" she asked.

"Yes."

"Hand it over to Dorsey Jones."

"Right now?"

"Now." Sarah stuck the pencil over one ear. "You know that five incumbent members of Congress were shot during the campaign?"

"Right, but Pressing is expected to recover."

"No quibbling, Quinn. Since when have even four members of Congress been killed in the same campaign?"

"I'd guess never."

"You guess right. I want you to find out why."

Quinn was left staring at an empty screen.

* * *

The balding professor looked at the sleepy class in front of him.

"I realize that eight o'clock is a preposterous hour for an exam, but political science is not a course favored by a more functionally minded administration. . . so we are gathered together at this rather inauspicious hour."

The professor held up a small blue notebook.

"This is a blue book. I believe I am the last professor still requiring written exams. You will inscribe your immortal responses to the questions I am about to place on the blackboard in these tidy pamphlets. You may use pencil, ink, or suitable substitutes."

Deal Wheeler shook his head as he watched the professor chalk up the three questions.

1. IS A REPRESENTATIVE DEMOCRACY ELECTED BY 51% OF 30% OF THE ELIGIBLE VOTERS PROPERLY CLASSED AS EITHER REPRESENTATIVE OR A DEMOCRACY?
2. PROFILE THE MOST SUCCESSFUL TYPE OF ELECTIVE POLITICIAN FOR THE CURRENT SYSTEM, CONSIDERING THE BASIS OF GOVERNMENT.
3. PREDICT THE MOST LIKELY OUTCOME OF SUCH A SYSTEM IN ANOTHER TEN YEARS, IN YOUR OPINION.

"I will see you all in two hours." The professor smiled and left.

* * *

Quinn looked at the sheets. Finally he tapped out Sarah Yee's number. He waited for her image to focus on the vidfax screen.

"I've got it."

"The story on the killings?"

"Same, same," Quinn answered.

"Is there anyone in your office?"

A look of annoyance crossed her face.

"Is there anyone in your office?" he repeated.

"Does it matter, Mr. Dolbert?"

"Yes."

"If you insist, then." The screen went gray for several minutes.

"All right. Let's have your secret message."

"Sarah. . . first, let me say I don't believe it. Second. . . I do believe it. And third. . . I'm against running it."

"Quinn, what the hell are you trying to say?"

He cleared his throat. "Last election, about ten incumbents were roughed up at some time during their campaigns. All ten won easily. Remember that. This election, there were three cases of assault on incumbents, plus the five shootings."

"And?" prompted Sarah.

"There's only one thing in common," he continued. "In this elec-

tion only five challengers personally attacked the record of the incumbents."

"Quinn, you're putting me on."

"Okay. Let me put it another way. Five challengers threw all the dirt they could at the incumbents...from party-line votes, hypocrisy, conflicts on their voting record...whatever. Here's what's even more interesting. All five were re-elected easily, even though three were dead before the election, Pressing was hospitalized, and Spielman was killed election night."

"Wait a minute! Are you telling me that only the incumbents who had mud-slinging opponents were assaulted?"

"That's right. Remember the ten assaults last election? As far as I can check, those ten incumbents also ran against mud-slingers. Now, I don't mean grubby dirt...I mean that the challengers had good solid facts that hurt the incumbents, or caught them in their own words."

"Skip that. What about the three cases of assault this election?" Sarah's face was intent.

Quinn shrugged. "Far as I can figure, challengers couldn't quite link the incumbents to the problems. Tried, but couldn't make the case."

"Quinn, that's the most preposterous story I've ever heard. Why, you almost sucked me into it." Sarah Yee laughed.

Quinn Dolbert laughed.

Edmund Wilhouse stamped and



mailed his thousandth resume.

Three students failed the professor's exam for forgetting the three F's...or the three B's.

Clem Bunker stood at the headgate with his boltcutters and let the water run through his frozen fields.

Jim Westnor stood on the loading dock and tested his permanent/non-permanent safety railing.

Bob Plaudder sat back on the breakfast bar stool and looked at the picture of Diane. He took another sip of the beer on the counter.

Corey Grademan signed his declaration for the special election. ★



GALAXY BOOKSHELF

Spider Robinson

Ariel I (quarterly), ed. Thomas Durwood, Morningstar Press, 80 pp., \$5.95

Frankenstein Unbound, Brian Aldiss & Thomas Vernon, Alternate Worlds Recording #5911, timing unknown, \$6.95

The Ones Who Walk Away From Omelas, Ursula K. LeGuin, AWR 7476, \$6.95

Joanna Russ Interpreting Her Stories, AWR 6913, \$6.95

Nightfall, Isaac Asimov & James H.B. Cutting, Analog Records, \$6.95

Search the Sky, Frederik Pohl & Cyril Kornbluth, Bantam, 166 pp., \$1.50

Gladiator-At-Law, Pohl & Kornbluth, Bantam, 172 pp., \$1.50

Wolfbane, Pohl & Kornbluth, Bantam, 141 pp., \$1.50

The Best Of, Judith Merril, Warner, 254 pp., \$1.25

City of Darkness, Ben Bova, Scribners, 152 pp., \$6.95

Rogue in Space, Fredric Brown, Bantam, 163 pp., 75¢

Who's Who In SF, Brian Ash, Taplinger, 220 pp., \$8.95

Weird Tales, ed. Peter Haining, Spearman Ltd., 264 pp., £3.50

Some of Your Blood, Theodore Sturgeon, Ballantine, 143 pp., \$1.50

I'VE SAID IT before and I'll say it again: I've always been a rather backward lad.

And I mean that (in this case) literally. As a child, riding in my parents' lemon, I invariably stared out the back window, fascinated by where I'd been. I like to re-read old diaries. When I got married to Jeanne, we had the whole damn ceremony videotaped (an outdoor triple-wedding in the north forty) and had an instant-replay in the kitchen afterwards (*just* the ceremony, nosy!). So it's no wonder I ended up as a re-viewer.

As near as I can figure, by the time this sees print, the 1977 Hugo Awards should already be history, or nearly so, and damned if I'll try to predict the results. Let somebody else stick their neck out. (You *did* vote, didn't you? You don't want your favorite writers to starve? Believe me, in this racket they will without your support.) But perhaps now might be a good time to look at some major events in sf that took place in 1976, but will *not* be reflected in the Hugos.

There is, for example, no category for Best New Magazine. 1976 saw the birthing of five new magazines in the genre (I'm talking prozines here—Harry Warner alone *knows* how many new fanzines were spawned!), which is probably a record and certainly four more than there've been in a mort of years. (Yes, I know one of them didn't appear until early '77—but it was *birthed* in '76.)

Isaac Asimov's SF Magazine doesn't look too bad, but I hate the layout and the format and see no justification for the use of Isaac's name or picture: his opening "editorial" was the slickest disclaimer since the back of the Western Union form. Furthermore, I was offended that a good half of the hundreds of classified ads were from practitioners of the classic "earn money stuffing envelopes" mail fraud—pyramid schemes gimme the pip: their perpetrators are germs who can only exist in an environ-

ment of decay. But the *stories* weren't bad, and Charlie Brown does a good job with the total Minireview format. *Galileo* is remarkably improved in its second number, and may make it yet—if their demented three-part payment schedule doesn't ruin them. They're still not up to the quality-level at which *Vertex* folded a few years ago—but then they haven't got near *Vertex*'s budget. And I really enjoy A.A. Whyte's "pre-reviews"—they're something I always wished I could do in this column, and can't. *Unearth*, the magazine specifically for previously unpublished writers, has Kiss Of Death written all over it and will almost certainly be belly-up by the time you read this. *Cosmos*, on the other hand, should by now be firmly established, if not wildly successful—its first number, the only one out as I write, is the most exciting debut issue I've ever seen. I like its 8 X 11 size (same as *Galileo*), the editor has good taste (read: he keeps buying my stuff), the monthly sf art double-truck (it is *not* a centerfold) is a fabulous idea, the paper stock is excellent, the interior color is great, and Jack Gaughan's brilliant layout clearly calls for some kind of special award (*another* special award, that is—at the recent Boskone, Jack became the first *artist* ever to be awarded NESFA's Skylark Award for significant contribution to sf). At this point, *Cosmos* looks like one of the best things to hit the field since

Baen came to *Galaxy* (did I happen to mention that I got a raise this month?), and I've entered a two-year subscription.

I've saved *Ariel* for last (and given its ordering-info in this column's heading) because it's the only one I haven't seen advertised heavily in the sf marketplace, the only one you can't almost certainly locate without effort. Apparently they spent more on quality than on hype, which alone calls for applause. A quarterly devoted to fantasy and fantasy art (including comics), *Ariel* is outsize (9 X 12), printed on better paper than *Cosmos*, glue-bound rather than stapled, and goes for six skins. It comes from Morningstar Press (PO Box 6011, Leawood, Kansas 66206), the same outfit that brought you the incredible Robert Howard/Richard Corben pictorial novel *Bloodstar* (an artifact worth its weight in diamonds), and the first issue of *Ariel* features a dazzling color Corben cover, the first section of Corben's "Den" in color, and an excerpt from *Bloodstar* which doesn't begin to do it justice. It also has Part I of a rare extended interview with Frank Frazetta; a color Frazetta back cover (a blowup from "The Frost Giants"); a thoughtful and profusely illustrated article on his work by Margaret Wilson-Cline; two Robert Howard poems; an illustrated interview with Burne Hogarth on the occasion of his final Tarzan assignment; and a fascinating article on the

psychological evolution of Batman (and, therefore, of Bruce Wayne—and, in a sense, of thee and me) from 1939 to the present, also illustrated (*everything* in here is illustrated). There are also two remarkably silly articles on The Parallels Between Frank Frazetta and Marlon Brando and on Conan As Existentialist, and two stories. I liked one—a tall tale by Paul Boles—and can't comment on the other because I simply can't read that kind of story: I'm colorblind in that range.

A remarkable magazine, as welcome to fantasy lovers as *Cosmos* will be to science-fiction fans, and worth the high price.

★ ★ *

Sf also gained not one but two new record companies in 1976 (although, as with the above magazines, some of the new product didn't hit the market until early '77), which is another . . . ahem . . . record.

There was only one other, far's I know, a remarkably dull one called Caedmon, which is one of the largest spoken-word companies in the world and threw in a few Asimov and Bradbury readings in an attempt to the eclectic. It will certainly be dwarfed—in this genre, anyway—by Alternate Worlds Recordings (148 East 70 St., New York NY 10021), which exploded with nearly a dozen releases in its

first year of existence. I've already reviewed half of them, each a peach, and there's a bunch more here on my desk. I'm sorry to say that, for me, AWR has lost its no-hitter.

Not that these aren't excellent recordings—as such they are superb. But if AWR recorded only works and writers that I like, they'd have to ignore an awful lot of extremely popular sf (the way I do).

Take Brian Aldiss's *Frankenstein Unbound*, for instance. It's a departure from AWR's usual format: a dramatization starring the author rather than a straight reading by same. It comprises an abridgment of Tom Vernon's four-and-a-half-hour BBC dramatization (which was broadcast in London in 1974) with connecting narration by Aldiss—and again, *as such* it's clearly superior to most BBC radio drama. This means it's almost bearable in spots. But the story itself is one which I find both tedious and pointless, a labor-of-love retelling of *Frankenstein* which in my opinion adds nothing significant to the original. The "parallel worlds" or "shifting reality levels" cliché is employed, apparently for the dual purpose of a) placing on the scene (presumably for contrast) a 20th-century man who never for a second sounds remotely like a 20th-century man except in the data he possesses, and b) allowing Aldiss, who plays the protagonist, to vicariously seduce Mary Shel-

ley—which, since Aldiss's *Billion Year Spree* nominated her for The Mother of SF, has an Oedipal connotation that I find entirely too cutesy. The style is authentic—that is, a hundred years out of date—loaded with melodrama and circumlocution and cornball dying speeches in which the last rattling breath serves to launch six to ten thousand words. The abridgment job certainly doesn't help, but I have a feeling that the four-and-a-half-hour original was just as formless, hammy and historically interesting. On the other hand, you might love it.

Likewise Joanna Russ *Interpreting Her Stories* turned me off—as her cover-copy jubilantly predicted it would. Unhappily, the title is a misnomer: she does *not* interpret her stories; she only reads them aloud.

Oh, side one is just fine: "When It Changed" is a damned fine story and deserved its award, and Russ's reading adds some depth and some clarity. But the going gets muddy on side two: on a good stereo you'll hear the axe grinding in the background, and sometimes in the foreground. Feminism of the Sneering Sophomore school: people who dance around in front of me with their dukes held high make me either edgy or amused depending on my mood, and in neither case am I moved to subsidize 'em. The last

words on the album are, ". . . and if you don't listen to me, I'll break your neck." (Honest to God.) If that's the choice, perhaps I should bring a bodyguard to the next Worldcon.

★ ★ *

On the other hand, Ursula K. LeGuin's album, *The Ones Who Walk Away From Omelas*, is a genuine masterpiece, perhaps the best in the AWR catalogue. LeGuin has a wonderful reading voice, as full of warmth and subtlety as her stories, and the selection here is splendid.

I've publicly bitched about "Omelet" on the grounds that it won a short story award and is clearly not a short story. It is a parable, and I guess now is the time to state publicly that it's a damned good one. It comes alive on record; in fact I believe this may be its natural medium. I know I enjoyed hearing it more than I did reading it.

On the flip we have the Orgota Creation Myth from *The Left Hand of Darkness*, also a parable, also just peachy in this medium—and a marvelous and poignant short story called "The Direction of the Road." It is told in the first person by an oak tree, and it contains some of the most memorable lines in my experience, and it is remarkable in every way—I never spent a more enjoyable twenty minutes (well, maybe that's going a bit too

far . . .). SF is supposed to give us different viewpoints, and this is one of the most fascinating I've seen yet.

Although Pohl's Law states that nothing is so good that someone somewhere won't hate it, I can hardly imagine anyone failing to enjoy this delightful album. Oh, and the George Barr cover is lovely.

★ ★ *

That covers AWR up to as close as the present as this column can get you. Now for the second new sf record company I mentioned: *Analog*.

Yep—*Analog* (350 Madison Ave., New York, NY 10017) has entered the record biz, and with a damned impressive debut disc. *Nightfall* (like *Frankenfurter On-Bun*) is a dramatization of Isaac Asimov's world-famous classic story about Lagash, the triple-sun world where the stars only come out every 2,050 years. As a dramatization it is superior to *Unbound*—about medium CBC quality (that means twice as good as anything you're liable to hear on stateside radio). Scripter and producer James H.B. Cutting has done an admirable job of adapting the 1941 classic to a sonofabitch of a medium (have you ever tried to adapt a story to radio? I have, and I admired Cutting's success).

Furthermore, you get a fifteen-minute rap at the end, between the Good Doctor (he's not listed with

the A.M.A., so he may really *be* a good doctor) and a certain magazine editor who shall remain nameless until I review his latest book a couple of paragraphs from now. The said rap includes background anecdotes on the story and its reception over the years which are informative and hilarious, as well as Isaac's comments on the production itself. Altogether a fine recording of one of the most popular stories in all sf.

Rumor hath it that the next release from *Analog* will be a dramatization of one of Gordy Dickson's Dorsai stories, and will include Gordy himself singing Dorsai songs and playing his guitar. I've sat up until six A.M., times when it was really drunk out, to hear that latter—I look forward to the record. *Analog Records*, by the way, are, like AWR's, \$6.95 the hit.

What else happened in sf in 1976? Well, the first concerted attempt to mass-produce sf peanuts failed. Loser . . . pardon me . . . *Laser Books* went where all lasers go when somebody takes the ruby away. Harlequin, the Toronto company that has been mass-producing Gothic peanuts so effectively for so long, pulled its rubies out after a little less than a year, insisting meanwhile to the press that sales had been entirely satisfactory. In fact, so much Kiss Of Death hovered over the project from its in-

ception that they never dared send me, or Lester del Rey, or *any* major sf reviewer, review copies. Despite two letters and a long-distance call to Toronto before the first Lasers were released, I got my first review copies on the very *day* I read in *Locus* that Laser was dead. They've been arriving regularly ever since, each accompanied by a computerized bill for "NIL," and my Ashley Automatic woodburning stove is starting to fill up with staples. It is impossible to believe that anyone connected with the project knew anything whatever about sf. Ah well—maybe now Kelly Freas'll get back to work. And maybe (please God) publishers will stop listening to Roger Elwood.

Sf peanuts sold OK on TV, of course—peanuts is what they want there. As I write, *Space 1999* (marked down, as they say, from 2001) is doing quite well, renewed for another quarter-mil-per-episode season, minus its only real actor and plus the first *deus ex machina* I'm aware of. (They no longer have to put Novocaine in Barbara Bain's face cream—constant exposure to electromagnetic-type radiation has taken its toll, and now she just naturally looks that way. I would too.) If *Holmes & YoYo* had survived, I'd now be contemplating some pun about Sheerluck Holmes (Wats-on tonight, dear?); but mercifully the thing is dead. May it rest in pieces.

There were two gigantic peanuts

in sf movies in 1976, and I prefer not to discuss them, thank you.

And in 1976, they filled in the last blank in Edgar Pangborn's biog. The blank right after, "Born, 1909 . . ."

On the off-chance that you have never read this column before, I will add only that Edgar was one of the three finest science-fiction writers that ever lived, and that we as a species should be proud to have produced him. The creator of *Davy*, *A Mirror For Observers*, *The Judgment of Eve*, *Company of Glory*, "Angel's Egg" and "Harper Conan and Singer David" will write no more, and that is an event of significance to the whole world—not just our little ghetto corner of it.

Also taken from us were Thomas Burnett Swann, Fritz Lang, Mary Gnaedinger and Daniel Galouye.

* * *

So much for 1976 In Review. Now let's take a *giant* step backward: as the Firesign Theater says, "Forward, into the past."

Last month I did a lot of shouting about Cyril Kornbluth, and just as that column went into the mail, I got a couple of reprints of collaborations between Kornbluth and Fred Pohl. I found one more in the stackonthedesk, and decided to tell you about 'em.

Because in case you didn't know, the Pohl-Kornbluth collaboration was the finest in sf history.

(I haven't seen a reissue of *The Space Merchants* yet, and I haven't read it in ten years, but it is one of the most famous works in the field. I'll review it if and when it arrives. Meanwhile I seem to have everything else the pair ever wrote—at least in book-length. They sent me a P&K story-collection too . . . but I lost it at Boskone.)

Fred's and Cyril's work together in the early 50s was certainly not the first satiric sf ever done—but it inspired an explosion of that *kind* of sf, which is still around today in the works of John Boyd and Ron Goulart (to give the opposite ends of a spectrum). P&K didn't invent the notion of extrapolating-beyond - the - point - of - absurdity—but they gave it a quantum jump in sophistication, in relevance, hooked it into an enormously more subtle social consciousness—and gave it a bite like an angry chainsaw. And they invariably refused the temptation to bake a nutmeg cake: in every single instance the satire is incidental, merely the setting in which a valid story with a non-satiric theme takes place.

Search the Sky, the first of these, is a wildly inventive and achingly funny book. Characteristically, it demands a helluva lot of suspension of disbelief—the tongue must be imbedded in the cheek—but the internal logic is unassailable.

The setting is a far future in which mankind has established itself on a few dozen worlds or so, with-

out any kind of FTL drive. Consequently exchange between these worlds is a seldom thing, with worse time-lags than this column, and warfare is a thing of the past. P&K apply simple genetics to the picture and end up concluding that there are things beside which the threat of warfare is a preferred option. In part, the thesis is an extension of the premise Cyril originally used in his classic masterpiece, "The Marching Morons," but extended through many centuries to show that even the stars can't save us, without FTL.

And the book is funny as hell throughout. The hero is a marvelous chump, an earnest young man who yearns to be a Hero and does his best and works it all out logically and decisively and keeps ending up hip-deep in shit. The heroine, certain to goad radical feminists into apoplexy, is a dizzy, dithering cupcake who does everything backasswards and keeps coming up covered in diamonds—which drives *him* up a wall. Their careening progress across the galaxy (on an FTL ship that she jiggled with a hairpin) is a zoo-parade of zaniness—yet in the end it is his logic that literally saves the human race, once he's gotten over a bad case of Frozen Postulates.

A satisfying book, meticulously logical, darkly satiric and consistently hilarious.

Gladiator-At-Law, published a year later, is a chillingly funny book—so many of its most dismal projections are now "topical," the satire strikes too close for comfort. We have a world in which only those whose services are valued by the great multinational corporations get to live in decent housing ("bubble-homes"), while the majority have to live in the miserable decaying jungles that our slapped-together-of-inferior-materials suburbs will surely become; a world in which the rich are much richer and the poor much poorer, in which both groups take their amusement from public gladiatorial circuses which amount to stupendous bloodbaths.

This book, too, is funny, but the humor is subtler than in *Sky*; sharper, more underplayed, never quite becoming slapstick. It barely blunts the edge of some very real anger, anger aimed at the mentality that is destroying us: the profit-at-all-costs syndrome. P&K personify this in two of the evilest villains I've ever come across, the Struldbrugs, and lead another earnestly-inept protagonist into a death-struggle with them, fought through the stockmarket and the sacred halls of corporate law. He succeeds only with the help of some extraordinarily vivid and believable supporting characters, and many deft subplots are ironed out with seemingly effortless elegance. This is one of the pair's best efforts, sec-

ond only to *Space Merchants* in maturity and depth of ironic insight.

* * *

Wolfbane is an entirely different kind of book, something of a departure for P&K. For one thing, it is not remotely funny, never tries to be. For another, it does not use a straight-line extrapolation of things-known: it posits major alteration of human destiny by alien intervention. No satiric slices are taken, save those that no story involving humans can avoid.

Briefly, *Wolfbane* takes place years after all humanity has been conquered and enslaved by mysterious aliens, who have manifested themselves as two enormous black pyramids, one on the Moon and one squatting on Mount Everest. The pyramids harvest people. What's left of mankind is divided into two groups, the Citizens and the Wolves. The former just about worship the pyramids; the latter plot hopelessly against them.

Eventually, of course, the times produce a hero who combines enough elements of Citizen and Wolf to allow for a solution. Unfortunately, he is very nearly the only human character who achieves realness—the others tend to be a bit one-dimensional. But the eight-brained Snowflake really comes across—and there's a wealth of carefully-detailed plotting, some rigorous thought, and a satisfying climax.

Truth to tell, I can't get a firm handle on exactly why I liked this one so much. When I analyze it, it comes out just "okay"—but there's something about it. Maybe it's just that it was P&K's last collaboration—damn near the last thing Cyril ever wrote. Or maybe I just like the central image of a gigantic alien brain contracting cancer.

I dunno. "Something in the way it moves . . ."

Speaking of Kornbluth & Pohl, this month I had the good fortune to meet a lady who knew/knows them both quite well (she twice collaborated with the former and once married the latter). Judith Merril was GoH at Halycon I, the first Nova Scotia sf convention (organized by Prof. Dorothy Broderick and sponsored by the Dalhousie U. School of Library Service—to whom thanks for a helluva good time), and she left a deep and lasting impression on me. She was also good enough to give me a copy of *The Best of Judith Merril*, which is certainly more than the publishers bothered to do, and I'm almost as grateful for that as I was for the chance to meet Judy in the first place.

If I had had this book on hand a few months ago when I did my all-women column, it would clearly have been Best-Of-Show. As it is, it's pick-of-the-month, at the very least. 95% on the Spidermeter (stories enjoyed ÷ total stories × 100), with a slight minus for ugly

cover and a four-page poem I couldn't make head nor tail of; more than offset by big bonuses for "Daughters of Earth," "Dead Center," and "Stormy Weather," three of my favorite stories of all time, not to mention a five-page poem, "Auction Pit," which I *did* unname and liked tremendously.

Every so often you come across a story or a bunch of characters so *real*-seeming that you forget, momentarily, that you're sitting with a book in your hands, squinting at funny black squiggles on its pages. When you come across several such in one book, it's an event.

The collection includes "That Only A Mother," one of the best first-stories in sf, and a first-rate introduction by Virginia Kidd, and it doesn't come within light-years of the feminine chauvinism the cover and blurbs try to impute to it, and I recommend it highly.

What the hell is a juvenile novel? Why do we sneer at them? What distinguishes one from an adult novel?

There are some obvious distinctions. The author is not permitted to confuse the reader with stylistic mahooza and multilevel allegories and shifting reality-levels . . . gee, that sounds kind of refreshing. The author is not permitted to bore the reader or attempt to gross him out . . . gosh, that sounds okay too.

The author is not permitted to wander aimlessly: an identifiable-with protagonist must undergo some rigorous trial and emerge a larger person—you know, that challenge-and-response stuff that low-brow writers keep trying to tell us that Life is all about. That doesn't turn me off either.

Heinlein once said the best way to write a juvenile sf novel is to take a youthful protagonist, write the best damned novel you can around him or her, and then cut the sex.

Well nowadays, by golly, you don't even have to cut the sex—unless it's grotesque, exploitive or overtly S&M flavored—and I can live with those restrictions too; I'm bored with Delany's black-leather-jackets-and-smelly-armpits stuff.

So I thoroughly enjoyed Ben Bova's new juvenile, *City of Darkness*. It reminds me sharply of Heinlein's "Coventry"—save that the Coventry here is a place called New York City. They only open it to the general public in the summer, and lock it up again on Labor Day—but one young lad, through misadventure, gets locked in for the winter, and finds that the city is far from uninhabited. Surviving that winter turns him into a man—and into a more responsible citizen of the Outside, too. He finds love, and the pain of its loss, and deadly danger, and useful work for his hands and brain, and I had a good time following along.

There're also some very real characters, some competent plotting, a carefully painted background and an extremely together black youth gang, all set in the ruins of the city that science-fiction writers most love to destroy (see my own *Telempath*, \$7.95 from Berkley).

So young readers get to read this stuff—and I have to wade through *Sadsack In the Furnace* and *Dullgrin?* Me for a second childhood.

* * *

Who's Who In SF isn't a bad idea—but it seems to me a poor job of execution. Capsule bios of famous folk in sf can be handy—I can use 'em here in this column. But there's not enough in this volume to help me. Example: I saw a blurb-quote from "H.H. Holmes" on the back of *Wolfbane*, and it rang a bell, so I looked him up in *Who's Who*. Nothing. Okay, so they don't list pseudonyms. Only they do: the next day I stumbled over "Holmes" listed under his other pseudonym, "Anthony Boucher" (real name: William White). Okay, so they list by best-known name—so why is Vargo Statten (British author of over 50 books) listed only under his real name, John Russell Fearn? Only one of Cyril Kornbluth's pseudonyms is given in his entry, and that one ("Cyril Judd") is incorrectly identified as one that he used with Pohl.

Enough on pseudonyms. How

about other data? Well, the bio stuff rarely gets deeper than birth date, and when it does, it's often misleading. The *bibliographic* is always incomplete—which I understand, as a complete Asimov biblio alone would triple the size of the book. But even the representative selection is sloppy: compiler Brian Ash seems to be unaware that Edgar Pangborn once wrote a book called *Davy*. Also, most entries are objective—but where Ash has prejudices (as with Heinlein), he feels free to shovel 'em in there—an abuse in his position.

And although the book claims to be current to the end of 1976, there are no entries for James Baen (although Bova and Ferman and even Ted White are cited), Jerry Pournelle (although his collabs with Niven are faithfully listed—under *Larry's* name), or Yours Truly. Startingly, there is an entry for Dick Geis—but not for Alter (nor for Charlie Brown or Andy Porter or Mike Glicksohn or all other big-name fan whatsoever)—and nowhere does the Geis entry suggest that he works for a prozine.

Any man who undertakes to compile a Who's Who of sf in total ignorance of the existence of the second largest-selling prozine in the world is leading with his chin, and I'm here to punch it squarely. The one thing a reference work must not be is confused, and that's the single overriding characteristic of *Who's Who In SF*.

Weird Tales is exactly what the title implies: facsimile reproductions (hilarious ads and all) of selected excerpts from *Weird Tales*, the magazine of horror and fantasy fiction whose originals command such breath-taking prices at Worldcon huckster rooms these days. Taken from all throughout *WT*'s 31-year lifespan (1923-1954), these selections—by folks like Howard, Lovecraft, Derleth, C.A. Smith, Quinn, Kuttner, Wellman, Leiber, Bloch, Bradbury, Sturgeon and E.F. Russell—are a pure delight, *exactly* like flipping through a complete collection of the magazine (which would cost more than the Kennedy hit did) (the first one, I mean). There are several excellent Finlay illos—the only place where facsimile format hurts (pulp paper was a poor medium for Finlay's genius)—and even a few facsimile readers' letters. Dammit, I don't even *like* this kind of story, and I had a ball reading through this book. I compute the price (converting pounds to dollars and adding the standard 20%) at about \$6.75, cheaper than many hardback anthos half the size.

This is the *second* Peter Haining antho I thought I was going to hate and ended up loving (the first was *The Ancient Mysteries Reader*—see Sept. '76 *Galaxy* "Bookshelf"—keep it up, sir, keep it up).

Oh yeah: Neville Spearman (Jersey) Ltd., which publishes this an-

tho, also has a buncha Arkham House titles on its list, at about \$3-6 apiece. Their address is P.O. Box 75, Normandy House, St. Helier, Jersey, Channel Isles.

I'm not supposed to cover *Some of Your Blood* here because it's not sf, but what the hell? It's by Sturgeon, and my only objection to it is its lack of a resolution. A gripping character study in abnormal psychology, and some fine writing—you may never order a Bloody Mary again. Go get it. (But you might not find it in the sf section.)

Looking back, I see that most of this column has to do with sf in the past: 1976 In Review, and then a buncha reprints and historical stuff. I'd like to leave you with something looking more toward the future—it seems fitting in an sf magazine—and fortunately just before I began this paragraph the phone rang and Baen gave me my trailer.

It seems that editors do so make good authors: for on March 9 of this year James Patrick Baen and Madeleine Louise Gleich co-authored a terrific six-pound thirteen-and-a-half-ounce short story called "Jessica Rachel," which shows great promise of growing, in serialized pages, into a damned fine novel someday. At this point I'm grinning so big I'm chewing on my earlobes, and that's as good an excuse as any to shut up.

Hey, Jim and Maddy—when do I get my review copy? ★



GET HAPPY

Thomas Wylde

From a biological viewpoint, pleasure is a means, not an end—for a species that thinks otherwise, it may be the end!

1

COLONEL HOWE SAT in the lander for 187 hours and refused to go EVA. Mission Control tried every argument and threat but he just wouldn't budge. In the end they had to initiate an updated liftoff sequence. They flew him back from Mars and put him in the hospital.

He's still there.

2

In the three years that have followed no attempt has been made to put another man on Mars. Colonel Howe recovered sufficiently in a few months to tell them what (he thought) happened out there.

They concluded he possessed a sexual fixation on the Earth and had suffered an intense paroxysm of loneliness when he stayed away so long.

They tried to reason with him, but he was perfectly reasonable.

They tried aversion conditioning, but the fixation was too deep-seated.

They did some wider testing and found the fixation was not peculiar

to Major Howe. (It was in fact universal in men and women.)

They tried some new techniques on him but they started something that couldn't be controlled and in the end they lost him.

Lieutenant Howe lay comatose in a hospital bed (losing weight almost as quickly as rank) and was conveniently forgotten.

He's still there.

3

Randall Grayson trained five years for space, then washed out (Howe's Complex) in five minutes. He went out to get drunk, then ran into something better. Get Happy.

He's been gone eight days.

4

MAKE YOUR BRAIN DO IT TO YOU FOR NOTHING. C'MON GET HAPPY! LEARN THE LATEST TECHNIQUE AT A HEADSHOP NEAR YOU. THIS WEEK ONLY FIFTY-BUCK DISCOUNT. WHAT THE HELL YOU WAITING FOR? C'MON GET HAPPY! (OFFER EXPIRES JUNE SECOND NINETEEN-NINETY-ONE.)

5

On June the fourth Iona Grayson (wife of) click-clacked into New-

man's office and said: "I want you to find my husband."

"So do I," said Newman. "Five bills a day plus squawking."

"You may not have to squawk him."

"Why not?" Newman frowned. Squawktracing was expensive. Who could live on five bills alone? "You know where he is?"

"I think so." She was looking around for a place to sit down.

"Just a minute." Newman opened a drawer she couldn't see into and stared thoughtfully at a pile of notices (Repos, Get-Outs, Pay-Mes, F-Os) and assorted busted hardware (a singed squawk inserter, a deflated, battery-corroded SONOzap). The drawer smelled sour and depressing. He slammed it shut. "My calendar is full tomorrow and for the rest of the week. . . ."

"Damn it!"

"Zokay, baby. We'll go now."

"Thank you."

Newman shrugged. "Get happy."

6

It was a military hospital in the hills above Glendale.

"You sure he's in there?"

"I think so," she said. "I got a garbled phone call."

Newman thought that over. Diving into Government stuff was borderline crazy. (And figure five bills and no squawking.) He shook his head.

Iona looked at him. "He's not *in* the service."

"It's not who he is that bothers me. It's who's got him that hurts." Newman gunned his engine to keep it alive (leaky carburetor). The car was just another cross to pack —primer black '72 Camaro with APC blowers cleverly blocked off.

Newman vented some evil-smelling salami gas, then sighed.

"Listen ('scuse me), Miss Grayson, this Government thing's got me going."

She flashed a grin of pure hatred. "Ten bills a day."

"Yeah, I know, but—"

"Shut off that engine!"

Newman turned suddenly to look out the side window, then burped painfully at the black-suited cop.

"Ahhh. . . ."

7

Seven days ago Grayson had twisted his ankle climbing off an E-bus and limped up the boulevard in broad stinging daylight. He was still too steamed to be careful, too brought down to realize they'd be looking for him.

He thought about calling Iona (in Houston), but he wasn't ready to talk.

He stepped painfully over a nodding feeb, then turned back for a closer look. The smiling feeb took no notice.

Grayson looked up and saw the giant neon sign:

GET HAPPY!

8

The cop reached through the window and pointed at the ignition. Newman gunned the engine and put his slimy hands in his lap.

"What?"

"SHUT IT DOWN!"

"Oh." Newman turned the ignition key. The engine rolled and sputtered for ten or fifteen seconds, then ceased. The car stopped rocking. A miasma of half-burnt hydrocarbons rose up and drifted away.

The cop said, "What year's this car?"

"Seventy-eight?"

"It's a seventy-two," the cop said.

"Yeah, well sure," Newman said. "That's what I, uh, said . . ." He could feel the sweat oozing down his sides. "Didn't I . . .?"

The cop consulted a small plastic card. Sweat rolled down his grimy face and dripped on the card. He grunted and smeared the sweat with a gloved thumb. "Follow me in your vehicle."

Newman looked apprehensively at Iona Grayson. She was scared, but trying hard not to show it.

Newman turned back: "Where are you taking. . .?"

But the cop was gone from the

window. In a moment he pulled out in front of the Camaro and motioned. Newman started his engine and they pulled away from the curb.

"He never even looked at me," Iona whispered. "Do you think he knows who—?"

"I don't know!" Newman snapped. "Let me think!"

Maybe they were already squawking him. Or her. More likely her. Didn't he screen himself carefully every morning?

Well, nearly every morning. . . .

His sour stomach rolled and fluttered.

Damn this Government business!

9

One week ago Grayson (husband of) had limped into a vibrating (crunch rock) Headshop on Ventura Boulevard and demanded to Get Happy. They smiled at him and checked his credit and made him comfortable in a back room with nine other initiates.

Everybody in the room suddenly became very nervous. Grayson made ten; the group was filled; the session would now begin. The doors were locked, and outside in the Headshop warning lights blinked (and were ignored).

The Get Happy technician (minister) came in and smiled professionally throughout a short disclaimer speech. Get Happy was a

great boon to man-and-woman-kind. The discovery of Get Happy was the most significant event in the history of the world. Get Happy training was the only sane path to take in an insane world. Get Happy would solve ALL your problems. Get Happy was IT. (Get Happy™ was not responsible for monetary or emotional loss or damage.)

"I'm sure you're all eager to begin training," the minister (technician) said. He paused dramatically. "Let's . . . Get Happy!"

10

FIFTY-THREE MILLION PERSONS (WORLDWIDE) HAVE TAKEN TRAINING FOR GET HAPPY TECHNIQUE (GH BULLETIN—ONE JANUARY NINETEEN-NINETY-ONE).

11

THE UNITED STATES ATTORNEY GENERAL WAS FORCED TO CONFER CONSTITUTIONAL PROTECTION ON THE CHURCH OF GET HAPPY. CERTAIN APPARATUS CONFISCATED FROM HEADSHOPS IN THE PHILADELPHIA AREA WERE DEEMED RELIGIOUS ARTIFACTS AND RETURNED. IN THE MEANTIME THE QUESTION OF TAX-EXEMPT STATUS HAS YET TO BE DETERMINED. THE IRS REFUSED TO COMMENT DIRECTLY ON

THE ATTORNEY GENERAL'S STATEMENT, SAYING ONLY THAT THEIR OWN INVESTIGATION IS STILL UNDERWAY.

12

When Newman saw the crusher, he knew what it was all about. They hadn't recognized Iona Grayson. They had recognized his '72 Camaro.

The cop led him right up beside the waiting crusher and stopped.

Newman got out and motioned to Iona to do the same.

"You wouldn't like it," he told her.

The cop spoke briefly to a dusty worker, then he scribbled on a card, handed it over, and took off. The worker spat and strode over to Newman.

"Sign here."

Newman gloomily fixed his chop to the card.

The worker glanced inside the car, then said, "Anything you want outta the trunk?"

Newman thought about that. Nothing legal, anyway. He said, "No."

The worker raised her hand and waved. A moment later a claw seized the Camaro and flung it into the crusher. Newman turned away as the metal screamed and popped.

They allowed him fifty bucks on the metal, then fined him fifty for driving an obsolete.

Newman led Iona out of the yard and stood by her till the cab came. "I'm going back to the office," he said.

"What about my husband?"

"I won't charge you for the car," he said, smiling sickly. "That couldn't be helped."

13

Four days ago Grayson had graduated from Get Happy training and could apply the technique without the anaEEG paraphernalia hooked up. He had his constructs in place, his image builders operating well enough (without augmentation) to find the GH pulse and sync it. He was even experimenting with a heterodyned pattern for increased pressure. He was advanced. He could turn a corner and Get Happy at a moment's notice. The thought was thrilling and dangerous and delicious.

He turned a corner and Got Happy.

14

RUMORS OUT OF DEECEE SUGGEST THE GET HAPPY TECHNIQUE (BFPC) WAS ORIGINATED BY THE AIR FORCE TO TREAT SENSORY-DEPRIVED SPACE PERSONNEL. IT IS SAID THEY TRIED TO OBLITERATE HOWE'S COMPLEX WITH POWERFULLY AMPLIFIED IMAGE

CONTROL BUT GOT INTO TROUBLE AND BLEW IT. IT IS FURTHER CLAIMED THAT THE MAN NAMED HOWE IS STILL VEGETATING IN A MILITARY HOSPITAL SOMEWHERE NEAR LOS ANGELES. *THE GOVERNMENT FIRMLY DENIES THESE RIDICULOUS STATEMENTS.*

15

Two days ago Grayson (husband of Iona) was apprehended by Garks and removed to an undisclosed location in Southern California. The man had Got (too) Happy.

16

Newman highstepped through the lobby of his building. The floor was crowded with refuse and sweaty febs on the nod. Get Happy.

There was somebody in his office. A big guy.

"Help you?" the man said, looking up from Newman's desk.

"Yeah. You busy?"

The man was going through the drawers. He threw a pile of Get-It-Up notices on the desk, scraped around in the drawer for more, then looked at Newman and grinned.

"You're Newman."

"That cheap son of a bitch?" Newman said, (pretty much) grinning back. "Not likely."

"Know him?"

"Well enough to know he'll never show his ass around here."

"Yeah?"

"He's running scared."

The big man said, "He ought to be."

Newman nodded at the desk.
"Find anything?"

"Nothing that works." The big man leaned back and put his feet up.

Newman stepped a little closer and shoved his hands in his pockets.
"Suppose we both stay here and wait for him?"

"Suppose I wait for him alone."

Newman made himself count slowly to five.

"All right. Have it your way."
He turned to go.

"By the way, Newman . . ."

"Yeah?" Newman burped and gagged on acid. "I mean, 'What you call me?'" The acid was trying to digest his throat raw. He coughed and swallowed.

"Newman," the big man said, smiling horribly. "We need one thousand bucks by tomorrow morning. After that another thousand every other day until you're clear with us."

"Well, sure, I . . ." His mouth was too dry to swallow; the acid went on burning its way through his neck.

"And don't look for me. If they have to send me to you again, I pull your spine out."

"Fair enough."

Iona Grayson was back in the shimmering parking lot of the hospital and staring at the enormous concrete cube as if it were about to split wide open and reveal her husband tangled in its web. She click-clacked resolutely to the entrance bunker.

Someone grabbed her from behind and spun her around.

"I'm back," Newman said, panting from his run across the lot. He swallowed some spit, then added, "For twelve bills a day."

"No."

"All right, ten, like you said."

"No."

"Eight, then!"

"No."

Newman cleared his throat and swallowed with determination. "My standard fee is five bills plus squawking."

"No," she said. "I've decided to do it without you."

"C'mon," he whined, "Jesus Christ. FOUR!"

She stared at him, rather too amused. "Three."

Newman bit his tongue. "You have no idea what you're getting into here!"

"Three."

"Government business is no swapmeet!"

"Three."

"Damn it, lady, I got ferocious overhead!"

"Two."

"Three's fine!"

"All right."

"Plus squawking."

She shook her head. "No need for that. I know he's in there."

"Great."

18

Yesterday Grayson was running his Get Happy pulse pellmell through a tortuous mine field of Government blocks and clangers. It was hard work, but the goal was right, so he persevered ten hours (he had nothing but time) until the pulse hit home and BFPC was achieved.

Then as suddenly as he'd got through, he made voluntary breakoff. He'd touched on a PC link out of the past and suddenly her image filled his mind—IONA.

Grayson lay in the hospital bed and blinked at the soft-lit ceiling. His body was gripped hard in a muscle field (the intensity of which was in negative FB to his alpha density; the more restless he got, the tighter the field held him).

When he came out of Get Happy, his body shook and jumped against the muscle field and he almost reached alarm status. He instantly generated calming pulses.

In five minutes his restored alpha waves eased the muscle tenser to the point where he could move around a little on the bed. Very carefully he inched his body toward the bedtable. Soon he was close enough, but

growing excitement made it hard to maintain alpha control.

He suddenly bucked his head and knocked a plastic water container over the back to the table. The water dumped out (ffzzz) into the electrical junction.

The lights were out a full second.

When they came back on, he was standing by the door. Wires and tubes dangled from his body. He ignored them and cracked the door for a peep into the hall.

Ah, good.

19

STUDENTS AND TAXPAYERS TODAY JOINED FORCES TO PROTEST ANY FURTHER GOVERNMENT SPENDING FOR SPACE RESEARCH, PARTICULARLY THE MANNED SPACE PROJECTS. "DEEP SPACE IS CLEARLY INACCESSIBLE TO MAN," A SPOKESMAN SAID. "HOWE'S COMPLEX PREVENTS TRIPS LASTING LONGER THAN SIX MONTHS. CLEARLY ANY THOUGHT OF VISITING THE PLANETS OF THIS SOLAR SYSTEM—LET ALONE TRAVELING TO PLANETS OF OTHER STARS—is ridiculous. MAN'S PLACE IS ON EARTH AND EARTH ALONE. THIS FACT IS INCONTROVERTIBLE."

20

Room 999 was the tomb for a

living corpse. Wires relayed the corpse's body-function data to a machine nobody bothered to look at anymore. Tubes delivered food and drew off the result. The corpse breathed.

21

After Grayson made his cryptic call to Iona (he had to wait sixteen hours for a safe phone), he crept through the nighttime building. He knew it would be impossible to get out on his own. He would have to remain free within the hospital until help arrived. He came to a door.

Room 999.

He couldn't have picked a better place. Nobody ever came in here. A lot of people working at the hospital didn't even know there was a Room 999.

Grayson peeked inside, then came in fast and closed the door. He was still the wired medusa.

He tipped (bare) toed to the bed and beheld the living corpse.

"My God," he said. "It's Colonel Howe."

22

"Here's how we'll work it," Newman said.

They sat in the parking lot in her rented car ('88 Mustang Square Deal). It was sweltering in there.

"You go in and ask to see your husband."

"I need to pay you for that?"
"Just do what I tell you!"

23

Early this morning Grayson encamped in Room 999. He found some couplers and plugged himself into Howe's feed line.

At first it worried him. He needed nourishment, but was afraid to wander the halls to look for it. He was already rigged for intravenous, so that seemed natural enough.

But he was worried they might notice the increased flow. For a moment he considered unplugging Howe and taking it all.

But Howe was a national hero. (More like a national treasure these days, an object to be filed away and viewed rarely—nice to have around when you got curious.)

But more than a public hero, Howe was Grayson's personal idol.

There was no way he could simply unplug the man.

(Later on he realized if they were watching Howe close enough to see an increased input flow, they'd probably also have noticed if his output slacked.)

So Grayson plugged in the Y-connection and settled down on the floor by the head of the bed. From here he could quickly slide under the bed should someone (in whatever state of confusion) approach Room 999.

An hour later he noticed the audio

jack and selector lying unused on Howe's bedtable. Grayson was still equipped with earphones, so he plugged in and ran through the selection.

There were three channels of anti-Get Happy pap, twenty-two television sound lines, three hospital intercom nets, a pair of music programs (classipop and crunch), and the news.

Grayson sampled them all for a while, then settled on the news.

24

. . . FOR TUESDAY JUNE FOURTH NINETEEN-NINETY-ONE. WE'LL RETURN WITH UPDATES IN FOUR MINUTES*****-****-*****-
*****MAKE YOUR BRAIN DO IT TO YOU FOR NOTHING. C'MON GET HAPPY! LEARN THE LATEST TECHNIQUE AT A HEADSHOP NEAR YOU. FIFTY-BUCK DISCOUNT POSITIVELY ENDS THIS WEEK. WHAT THE HELL—

25

"I want to see my husband. My name is Iona Grayson."

She stood alone before the desk in the entrance bunker. The receptionist smiled sweetly. "What name, please?"

"David Randall Grayson."

"I'll just see." The receptionist turned to a file output screen and

typed (blue fingernails clicking) on the keyboard.

Iona stood stiffly, breathing loudly. Her heart pounded unbearably, and the receptionist's perfume was making her sick.

The receptionist eyeballed the pulsing screen, then turned and smiled. "I'm dreadfully sorry," he said, "but we have no David Randall Grayson on our lists."

Iona took a deep breath and forced her voice up ten ob's: "I know he's here!" (She swallowed hard, her mouth horribly dry.)

The receptionist smiled, murmured, "I'm terribly sorry, Mrs. Grayson," and nudged a concealed button with his knee.

"You damned liar!" Iona screamed.

Doors sprung open on opposite sides of the bunker. A guard raced through one, Newman the other, both on a collision course intersecting at Iona.

26

Grayson crouched beside the sacred bed and listened to the news. From time to time his mind wandered into near-fieb status and he retreated with a jolt. The third time it happened he began to wonder if he was losing control.

Then he saw how casually he regarded that horrible possibility, and he was really scared . . . for a while.

"I want my goddamned *husband*!"

The guard said, "Please—"

Newman jabbed the distracted receptionist and flashed a plastic card in his face for about three microseconds. "Name's Blahblahblah, Air Force audio-visual."

"Calm down," the guard told Iona.

"Excuse me?" The receptionist turned to ogle Newman.

"Outta Norton Air Force Base?"
"He's here, I know it!"
"Can I help?"
"Don't touch me!"
"We need update footage on astronaut Howe."

"You'll have to leave."
"Howe?"
"For the archives, ya know?"
"*I know he's here!*"
"I don't know . . ."
"I cleared it with Hospital PR before—"

"Lady, *please*—"
"My instructions—"
Iona began to scream.
"C'mon, man," Newman insisted.
"Get some other guys," the guard said.

Iona sat down on the floor, screaming louder and louder.

The receptionist turned to reach other hidden alarm buttons. Newman jabbed him repeatedly on the shoulder till he snapped, "Room 999!"

"Thanks."
The guard struggled with Iona,

trying to dose her with a muscle relaxant. Newman winked at her as he passed on his way to the elevators. The last thing he saw was two more men rushing out of the door across the way . . .

The elevator doors rattled together. Up he went.

GOVERNMENT SPOKESMEN CONTINUE TO ASSERT THE GET HAPPY DROPOUT RATE HAS NOT ADVERSELY AFFECTED THE ECONOMY. "A CERTAIN SEGMENT OF THE POPULATION HAS TRADITIONALLY TAKEN DRUGS TO DEMONSTRATE THEIR DISINTEREST IN SOCIETY. THEY WILL NOT BE MISSED."

TEAMSTERS JOINED STEEL AND AUTO WORKERS IN HOLDING THE LINE AGAINST MEMBERS WHO GET HAPPY ON THE JOB. "IF A MAN CAN'T CONDUCT HIMSELF PROPERLY, LET HIM GET THE HELL OUT OF THE WAY FOR SOMEONE WHO CAN."

GOVERNMENT FIGURES SHOW UNEMPLOYMENT DOWN ANOTHER THREE MILLION PERSONS IN THE

FIRST QUARTER OF NINETEEN-NINETY-ONE. MEANWHILE THE LISTS OF HARDCORE UNEMPLOYABLE (VOLUNTARY) CONTINUE TO SWELL.

31

A BILL TO PROHIBIT OR REGULATE GET HAPPY TRAINING WAS KILLED IN COMMITTEE ON CAPITOL HILL. A SPOKESMAN FOR THE LOBBY SAID, "THANK GOD THIS COUNTRY STILL HONORS ITS COMMITMENT TO GUARANTEE THE RIGHT TO PURSUIT OF HAPPINESS."

32

Newman stepped out on the ninth floor and looked down the hall in both directions.

The entire floor seemed deserted. No Muzak. He noticed the hall was not so thickly divided with doors as a normally populated hospital floor.

He checked a few numbers, then headed down the longest corridor, toward what he figured had to be the final door.

As long as he was up here he might as well get a look at Howe. He was halfway there when he heard the sound.

Somebody was coming up fast behind him.

Newman kept moving.

GET HAPPY

33

THE FEDERAL DRUG ADMINISTRATION HAS RELEASED A REPORT ATTACKING GET HAPPY TRAINING AND LABELING IT "PSYCHOLOGICALLY ADDICTIVE." THE REPORT CONCLUDES: "A CURSORY EXAMINATION OF OUR STREETS AND HOSPITALS REVEALS THE DAMNING EVIDENCE: 'SLEEPING' BODIES, INERT GET HAPPY ADDICTS TOTALLY UNINVOLVED IN THE WORLDS AFFAIRS. CLASSIC CASES SUPPORT THE THEORY OF ADDICTION LEADING TO IRREVERSIBLE COMA. THE SUBJECT SUBMERGES HIMSELF IN AN ORGY OF GET HAPPY STIMULATION TO THE POINT WHERE HIS CRAVINGS CANNOT BE CONSCIOUSLY CONTROLLED. THE SUBCONSCIOUS NEED FOR PLEASURE IS LIMITLESS. IT IS ONLY A MATTER OF TIME BEFORE THE UNCONSCIOUS LEARNS THE TECHNIQUE OF PLEASURE CENTER FEEDBACK CONTROL AND EMPLOYS IT ON A FULL-TIME BASIS. ONCE THIS POINT IS PASSED THERE IS NO COMING BACK."

34

Newman stood in front of Room 999.

"Here we are, sir," the PR man said.

Newman nodded glumly. His plan—to wander "helplessly" about and search for Grayson—was badly

141

snagged by the hospital's unexpected efficiency.

After fooling around with Howe a bit (he was somewhat surprised there really *was* a Colonel Howe), maybe he could lose the PR creep in the men's room and continue his search.

"Are you ready?" the man said. "I warn you, Howe is a bit of a shock to look at. And I'm sure he's deteriorated even more in the year since I've last seen him."

Newman nodded. "Fine. Let's go inside."

35

Three hours ago the computer red-flagged the patient in Room 999. Intravenous feeding schedule: input more than doubled, output slightly declined.

After two hours someone decided to look into the matter.

TEREY. "YOU CAN JERK ME AROUND ALL YOU WANT," SHE SAID. "BUT YOU CAN'T TOUCH ME INSIDE. YOU CAN NEVER TAKE AWAY FROM ME WHAT I'VE CREATED IN MY OWN MIND." HER PARENTS TOLD OF A WILD CHASE THROUGH THE CITY AIDED BY PROFESSIONAL SNATCH-AND-DEPROGRAM TEAMS. LOCAL POLICE COULD ONLY STAND BY AND—

37

Grayson saw shadows under the door in the hall and quickly disconnected from the audio box. He was slithering under the bed when the door opened and two nurses squeaked in.

"There you are," one said.

The other smiled and tapped the alarm plaque on the wall.

38

36

FRIGHTENED PARENTS OF A FIFTEEN-YEAR-OLD GIRL TODAY DESCRIBED UNSUCCESSFUL ATTEMPTS TO DEPROGRAM HER GET HAPPY TRAINING. THE GIRL, STILL IN VOLUNTARY CONTROL, HAD RESISTED AND WAS SUBSEQUENTLY KIDNAPPED FROM A GET HAPPY-SAFE HOUSE IN MON-

"There he is," the PR man crowed (sort of).

"Colonel—excuse me—*Lieutenant* Howe: the only man to land on Mars."

Newman looked at the thin figure on the bed. The resemblance was there, the thin nose and sharply rounded chin, but much of the flesh had melted away. The flattened

chest stirred slowly in shallow, measured breaths.

"When will your men—?"

"What?" Newman said, hiding his confusion.

"Your film' crew," the PR man said. "When will they be—?"

"They're, uh, riding in from San Berdoo."

"Oh."

"Maybe another hour . . ."

"Of course if—"

"What's he doing now?" Newman asked.

Howe had opened his wide mouth. Now he burped loudly.

"Does he do that often?"

The PR man looked uncomfortable. "I'll check."

He glanced quickly about the room, then said, "I'll just go out in the hall and phone down for a nurse."

Newman watched him leave the room, then inched up beside Howe and inspected him with curiosity.

The mouth gaped open again and Newman touched Howe on the chin.

"Ahhh . . ." said Howe.

39

Half an hour ago they hauled Grayson out of Room 999 and downstairs to a room equipped for autosquawking. They didn't want to lose track of him again. They didn't bother to re-establish anti-Get Happy therapy—he seemed to be in control for the time being.

But not for long.

After they left him alone Grayson lost little time in finding his PC with a Get Happy pulse. Once again he jumped out with a tactile image of Iona. Tears welled in his eyes.

40

They dragged her limp body toward the door and nearly had her out of the bunker when a supervisor happened by and demanded to know what they were doing to the poor woman.

They told him.

The supervisor was not happy. "Chrissake, you can't just dump her back in her car after Flabbing her."

The guards shrugged.

The supervisor frowned. "Take her up to the lounge and let her sleep it off."

The guards nodded sullenly and hauled her to the elevator.

41

"Ahhh," Howe said again, and licked his lips.

"Colonel Howe!" Newman said, grinning. "Tenhuah!"

Howe opened his eyes and blinked.

Newman whispered, "Jesus Christ."

Howe sighed long and loud, swallowed twice, and said, "Well, that's that."

Iona woke up on a cold plastic couch in an empty room. She stood up and walked shakily to the door.

Fifty feet down the hall she found a terminal and typed the question. The screen flashed the answer without hesitation: *614

Iona took the elevator to the sixth floor.

Grayson couldn't move his hands to wipe the tears from his eyes. After a while they dried on his cheeks.

He felt a strong urge to Get Happy but he suppressed it with all his strength. He had to remain alert in case help wandered in. Help . . .

Damn it, he mouthed.

It was hopeless . . .

But he would fight, damn it, he would fi—

GET HAPPY

The order came from deep inside and it was more than an order—it was a fact.

His subconscious, doubly frustrated the last few days, searched till it found its own Get Happy pulse.

Grayson's body shuddered into BFPC with a vengeance. Enormous waves of pure pleasure thundered through his system, an irresistibly sweet flood of ecstatic energy that

washed out all blocks and doubts.

He was not bitter that he'd lost.

He was not even appalled by the realization he was out of control. He rejoiced openly that the dam had finally broken. Isn't this what he had really craved all along? Isn't this what makes life worth living? Isn't this all there is?

He was purely, overwhelmingly, incontrovertibly happy.

And the best part—he knew it would last forever!

THE SURGEON GENERAL TODAY ANNOUNCED THAT GET HAPPY TRAINING IS DEFINITELY HAZARDOUS TO HEALTH. HE NOTED THAT THE INCIDENCE OF GET HAPPY DEPENDENCE IS PANDEMIC IN THE NATION AND IN THE WESTERN WORLD. "THERE IS NO KNOWN CURE," HE SAID. "FURTHERMORE, ATTEMPTS TO CONTROL ITS SPREAD WILL MEET INEVITABLE AND STRONG OPPOSITION ON LEGAL AND EVEN PHILOSOPHICAL GROUNDS. SINCE THE TRAINING CAN BE TAUGHT QUICKLY AND WITH A MINIMUM OF APPARATUS, THERE SEEMS TO BE LITTLE HOPE IN PHYSICAL PREVENTION. EDUCATION ALONE CAN BE OF ANY HELP. BUT WHO AMONG US IS STRONG ENOUGH TO WITHSTAND THE TEMPTATION OF UNLIMITED PLEASURE? YOU TELL

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A MAN THAT HE CAN'T CONTROL IT AND HE SIMPLY WON'T BELIEVE YOU—THOUGH IN HIS HEART HE KNOWS YOU'RE RIGHT. THE INSIDIOUS FACT IS THAT WE CRAVE PLEASURE ON SUCH A PRIMITIVE LEVEL THAT NO BLOCKADE—CERTAINLY NOTHING SO FLIMSY AS REASON AND INTELLECT—CAN CONTAIN IT." FOLLOWING HIS STATEMENT THE SURGEON GENERAL WAS STRONGLY CRITICIZED BY THE GOVERNMENT FOR BLOWING THE PROBLEM OUT OF PROPORTION.

45

Iona pushed on the door to 614.

Several technicians looked up from their patient on the bed. She took one look at the gaunt man lying there and turned, mumbling, "Excuse me."

Then she looked again and started to scream.

46

THE GET-HAPPY FOUNDATION HAS UNVEILED A SIMPLER AND HARDWARE-FREE GET HAPPY TECHNIQUE. "WE BELIEVE THIS NEW PROCEDURE CAN BE TAUGHT EFFECTIVELY ON TELEVISION. IN THESE TROUBLED TIMES WE CAN THINK OF NO MORE APPROPRIATE GIFT FOR THE WORLD. NOW

47

"They were wrong," Howe told Newman. "It doesn't last."

"But you were out of control for two years!"

"And I loved every second of it."

"Why did you stop?"

"I don't know," Howe said slowly. "One second I was out of control, then I was *in* control. A moment later I found out I couldn't do it anymore. God, I wanted to but I couldn't."

"What happened?"

"I think I just burned it out."

48

COLONEL HOWE, THE FIRST (AND LAST) MAN ON MARS, HAS BEEN STUMPING THE COUNTRY MAKING SPEECHES IN FAVOR OF MANNED SPACE EXPLORATION. "I'M BACK," HE SAID. "AND I'M READY FOR THE LONG VOYAGE." HOWE REPORTED HE'S RID HIMSELF OF THE PSYCHOLOGICAL CONDITION THAT BEARS HIS NAME. "IT'S BEEN BURNED OUT OF ME ALONG WITH EVERY VESTIGE OF PHYSICAL OR EMOTIONAL PLEASURE. ALL THAT IS LEFT TO ME—ALL THAT WILL SOON BE LEFT TO YOU—is THE INTELLECTUAL PLEASURE OF DISCOVERY AND EXPLORATION."

JANUARY FIFTH, NINETEEN-NINETY-TWO: THE GOVERNMENT TODAY FOR THE FIRST TIME INTIMATED THERE MAY BE SOME ADVERSE ECONOMIC EFFECT AS THE COUNTRY (AND WORLD) ENTERS A PERIOD OF GET HAPPY DEPENDENCE. "IT'S A MATTER OF PRIORITIES," A SPOKESMAN SAID. "AND IT DEPENDS A GREAT DEAL ON HOW LONG IT TAKES FOR THE GET-HAPPY SYNDROME TO RUN ITS COURSE. IT WILL BE RATHER TOUCHY FOR SOME YEARS TO COME. NATURALLY IN THE INTERIM THERE CAN BE NO BETTER PLAN THAN NATIONAL AUSTERITY. THE EXPLORATION OF SPACE, FOR EXAMPLE—"

50

Howe and Grayson walked grim-faced through the street, threading their way among the nodders and volunteer feeders.

Nobody seemed to notice or care why two unhappy men walked aimlessly when there was so much work to be done everywhere.

They were the first of the burnt-out men. Soon there would be many, many more.

At the end of the block a huge sign was falling apart, its crackling letters randomly dark:

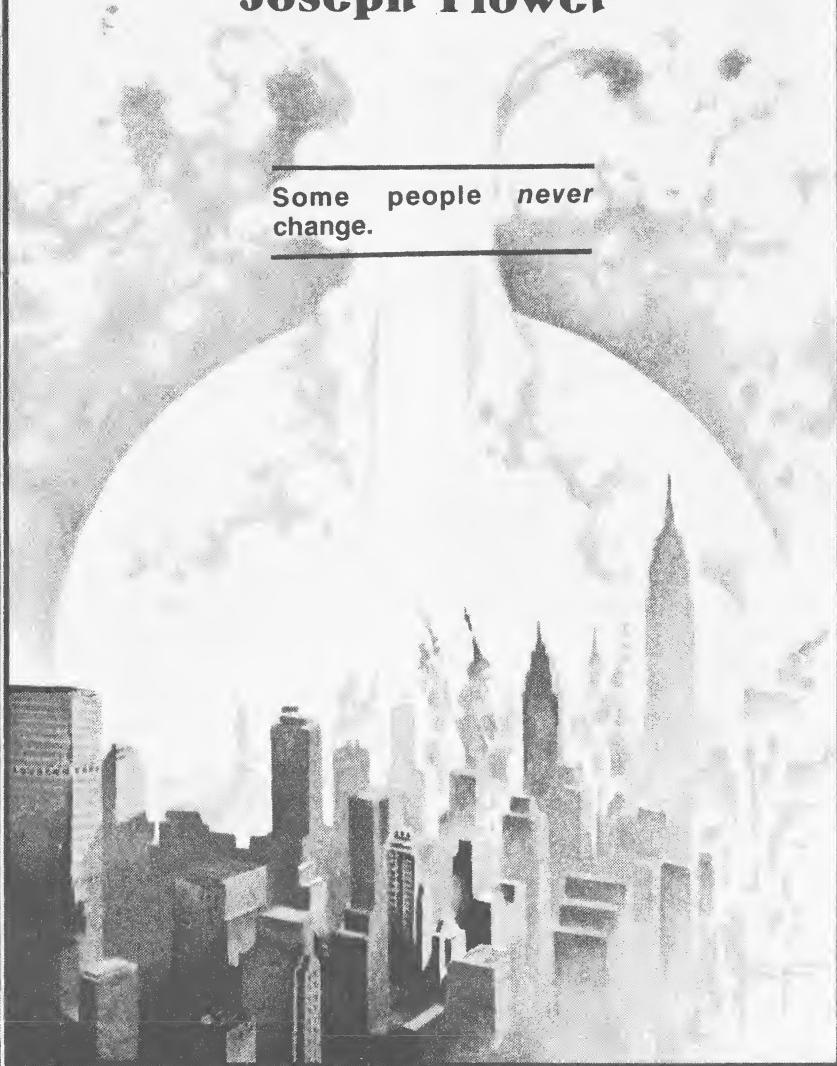
G*T H**PY*



COMING HOME

Joseph Flower

Some people never
change.



ON A NORMAL MONDAY morning, ships docked in Houston, New York, Oakland, New Orleans. Barbers raised the blinds in Pittsburgh. Wives woke already tired. The trees of Aspen felt an unusual stillness in the air.

In the White House, Captain Michael James of the Office of Science and Technology poured himself a second huge cup of black coffee, gave it three spoons of sugar and started flipping through the mail. It was James' second tour; he had been a White House Fellow the first time through, then a stint at the Pentagon, over to Rand, then back in with the new Administration two years ago. There was a letter with no stamp and no return address.

In California, Inspector Bob Tanner stepped out of the Customs shed of Oakland's vast Seventh Street Terminal with his first cup of coffee, squinting in the morning light that poured across what could have been miles of asphalt. The terminal had the dimensions of an aerodrome. Everything was outsize—the cargo sheds, the towering cranes that could turn a ship around in eight hours. The containerships themselves were monstrous, the forty-foot containers stacked high on their decks like fish tins in a market. Tanner was a short man, muscular, maybe a little too muscular for the neat blue Customs suit, his face broad and pink, his thin hair neatly combed over his pate. He felt the top of his head gingerly.

Time to get to work. It would be a busy day—a Monday, and two guys out sick. At the far end of the asphalt he could see an ancient black Victory ship moving slowly into place, its sides streaked with rust, containers piled precariously on the tiny decks. The bow said, "DAR."

Captain James was at his desk. He looked at the note, his heavy brows pulled together in thought. A tipsy woman at a party had told him once that he was so thin and his eyes were so big that he looked like a praying mantis. Well. He took another long swallow of coffee. The note said:

Dear Captain James:

Please inform the President that he is to surrender the country by 9 P.M. EST Tuesday. If he fails to do so, the country will be in great danger.

It was neatly typed on white bond, no letterhead, no signature. No stamp. No return address. Why would anyone send a note like that to me? he wondered. He shoved it in an interoffice envelope, marked the envelope "Secret Service" and dropped it in the "out-message" box. Some nut.

"Break that seal, would you? Let's have a look inside." Inspector Tanner looked over the "DAR" manifest. Mostly frozen goods. Shrimp. Container after cold container was coming off the creaking old ship and being mated directly with the rigs that would carry them inland. Panamanian registry.

Norwegian crew. Modified, God knows how, for refrigerated containers, "reefers." Stops all over East Asia. The driver swung the container's doors open. Boxes, floor to ceiling, markings in Chinese and English. Tanner pulled out a knife and swung himself up beside the boxes. Quickly he cut a hole in one box and slit the plastic bag inside. A half-dozen tiny pink shrimp fell out. He produced a flashlight and, hoisting himself precariously on one toehold, peered over the top of the stack. The boxes faded uniformly into blackness. They filled the whole truck. He slapped his meaty hand on some of the boxes within reach to see if any were hollow. He got down carefully, puffing.

"You want to check the side?" asked the driver, a young, rangy sort in cowboy boots, jeans and an immaculate T-shirt.

Tanner glanced at the waiting line of trucks. "Nah. Take it out. Go ahead," he said, signing the Customs release and gate pass. He looked through the remaining forms. The top six, at least, were shrimp, each one to a different place. Behind him the jockey was slamming the door to, securing latches, thunking the tires, whistling a tune that was wild and insupportably sad.

* * *

Time to beat it. Captain James swung his jacket on, adjusted his tie

in the mirror. He'd had the uniform altered for his thin figure. Praying mantis. The phone rang. He snorted, and took one more look in profile as the phone rang again.

It was Belk, in the Secret Service.

"Good, glad I caught you," said Belk, his voice thin on the wire. James could imagine Belk standing, leaning on his desk, not drumming his fingers while he talked. All those guys in the S.S. made him nervous. They were as cool as cheetahs, no nervous habits, quiet, never tired.

"Glad I caught you. Got just one question for you before you slip out."

"Yeah?"

"Yeah, that threat, or whatever it was, that you sent over. How'd it come in? There's no stamp on it."

"I know. But it was in with the regular mail."

"In the mail bag?"

"I guess so. It was just on my desk."

Belk didn't answer. James couldn't hear him breathe.

"With the other mail."

"Uh-huh." Another silence. Maybe he was writing. "Uh-huh. Okay. Appreciate it."

"Anything happening? You guys have any idea why someone would send a note like that to me?"

"No. No. This is all routine. Thanks." And he clicked off.

James put the phone down slowly, looking at the door.

* * *

"Where you headed, Dan?"

The young trucker looked up from his coffee and his face broke into a grin. "Spark! I didn't see you."

The waitress smiled back. "Just came on. I work nights now." Her plastic name tag said, "Jane," but she smiled when the truckers called her "Spark." She was their friend. "Where you headed?"

"The usual. Salt Lake. Whole thing's full of frozen shrimp."

"Shrimp?" She peered out the window at Dan's big White Freightliner parked under the lights.

"How's things in Winnemucca? Gettin' lonely yet?"

"Oh, gettin'." She wiped the counter. "Why, you got plans?"

"Oh," he said, grinning into his cup, "not big ones."

* * *

The next evening the phone rang in Captain James' apartment. He put down the article on bioglass he had been reading over the remains of dinner and looked at his watch: 9:37. The phone rang again before he got to it.

It was Ashe, one of the President's men. Ashe had a high, cutting voice and a reputation as a political thinker of considerable subtlety.

"The Boss wants to talk to you."

"Now?"

"Soon as you can get down here."

"What's up?"

"Wouldn't tell you if I could. We'll be in the EOB. Right?"

"O.K."

* * *

A Mack with a reefer from New Orleans rolled through Sweetwater, Tennessee. In Albuquerque a night receiver at an SP warehouse signed a receipt for a reefer from Galveston. In Limon, Colorado, a baby whimpered in its sleep while its mother and father fought in the next room. The father began to feel desperate and alone; he felt everything that he thought he was begin to wash away.

* * *

Captain James was not a politician. He never felt hungry enough. But he felt a connoisseur's appreciation for the arcane machinations of power. His was a technical mind, and political interplay carried for him the same floral beauty as, say, the brief lives of quarks or the barely imaginable turmoils of black holes in space. It was this appreciation that had brought him back to the White House and that brought his senses keenly to life as he stepped into the comfortable working office of the President in the Executive Office Building.

The President was leaning against

the desk. "Captain James," he said, smiling warmly. "Sit down. I believe you know Bob Ashe. And John Tines." Ashe was small and dark, had a face like a hatchet, a surprisingly slovenly man. Tines, the Press Secretary, had cut his teeth covering the movements of the Sixties for the *Times*; he was a large, round man, with a full, brown moustache. "We have a quick decision to make," the President went on. "We need the best kind of technical information and advice, but we don't have time to go to the departments. Besides, we can't afford a leak. Since you are highly recommended, both as a technical mind, and as an honest and," he paused, "*loyal* member of the team, we asked you down. We need those qualities right now."

James sat down, a little overcome. The President's reputation for personal charm did little to blunt the effect of an actual meeting. "What's happened?" he asked.

Ashe said, "Let me ask you a few factual questions, Mike. What's happening at Wharton, Illinois?"

"Wharton, Illinois?" The disconnectedness of the question was breathtaking. "Wharton? Nothing that I know of. A lot of farms. I remember there's a silage concern. And a trucking warehouse on the edge of town. Why?"

"Pentagon have anything there?"

"No."

"No hard sites, armories, depots, Minutemen?"

"No."

"Rand have anything? Is there anything scientific out there at all? Labs, reactors, anything?"

"No. Why?"

"How sure are you?"

"Positive."

Ashe lapsed into silence, staring at his fingertips. The President said, "There was an explosion there about an hour ago. A nuclear explosion of some kind."

"A nuclear explosion?" echoed James. "How big?"

"Not big the way those things go, I guess," said Ashe. "Leveled half the town, maybe all of it. But it was a small town. We've got maybe a hundred or so dead out there."

"The main thing is, it was nuclear, and the word's getting around. We've got to put out some kind of statement soon. And we haven't the foggiest where the thing came from."

"Well, we have some guesses," said Ashe, ticking them off on his fingers. "Look, it's either ours or someone else's. It can't be someone else's. You couldn't even sneak a cruise missile all the way in to Wharton, Illinois, without someone at least hearing the thing. Let alone a bomber or an ICBM. Besides, who would want to bomb Wharton, Illinois? So it must be ours. And since there's nothing there, reactors or hard sites or anything like that, it must have been something being moved *through* Wharton. So like I

said before, it was probably a freak accident involving the transportation of a low-yield fission warhead."

"Should we put that out, then, sir?" asked Tines. "People are going to get real nasty. We should put out something soon."

"Hold on," said James. "Sir, you said an hour ago? That would be 9:40?"

"Well. . ." The President picked up a cable. "No. It was 9:07 our time, 8:07 local. Why? Does that mean something to you?"

"Maybe, maybe not. But I think you ought to talk to Belk in the Secret Service."

"Why?" asked Ashe.

"He has a note that I received today from some nut, demanding that you surrender the country by 9 P.M. or something drastic would happen."

The President smiled. Ashe grinned and asked, "Did they threaten to blow up Wharton, Illinois? They really had us by the short hairs."

Tines said, "Sounds like a coincidence to me. They get these notes all the time. This one just happened to name a time that coincided with a freak accident. People don't just make atomic weapons in their backyards."

The room was quiet for a moment before Ashe spoke. "Maybe. There's just one little thing. You say the letter was addressed to you?"

James said, "Yes."

"Why?"

"Why?"

"Why was it addressed to you and not to the Boss, like most of those crank notes are? There's a connection that is escaping me."

"Well," said the President quietly, "since Captain James is our technical man, maybe whoever sent the note felt that he would have technical knowledge that would somehow authenticate the note. What do you think, Captain? Does the idea suggest anything to you?"

"Well, the note didn't say what would happen if we didn't surrender. But if the note is connected in some way to this explosion, I can tell you that some of your assumptions are pretty shaky."

"How's that?" said Ashe.

"Well, you wouldn't necessarily need a bomber or a missile to get a low-yield fission device to the middle of Illinois."

"Oh? How would you get it there?" asked Ashe. "Assuming you had one."

"Carry it. Or put it on Greyhound."

"What?" cried Tines.

"Come on now," said Ashe, "we're talking about an atom bomb."

"Right," said James, his blood suddenly pumping audibly. "The critical mass for plutonium is about thirty-four pounds. With shielding, control mechanisms and all, the smallest atom bomb might weigh less than seventy-five pounds."

"Jesus!" exclaimed Ashe. "And with that you could blow up what? A city?"

"No. A football stadium. A few hundred pounds more could do in a city."

Tines asked, "So how could they get it in the country?"

"I frankly don't know. But things larger than that are smuggled into the country all the time. And it could be brought in pieces."

"With this much at stake, I'm sure people can be quite clever," said Ashe. "It makes me think of Prohibition."

"It wouldn't even have to be from overseas," said James. "This could be 'home-brew.' The theory of fission is well understood, and the construction problems are not insurmountable. In fact, four years ago a graduate student in Syracuse did build one in his backyard. It was a complete, working model. All it lacked was the plutonium."

The President walked behind the desk and sat down. "All right. So if some psychotic, or the Syndicate, or somebody, wanted to build a bomb, or wanted to hire someone to build one, it wouldn't be a big problem. But where would they get the plutonium?"

"I'm just guessing still, sir, but, not counting foreign sources that might be perfectly willing, for their own reasons, to smuggle some in to them, there are lots of places to get it within our own system. We lose enough each year, just in industrial

transportation of the stuff, to make it feasible."

"Lose? How much do we lose?" The President's voice had an edge on it. "How do we lose it?"

"I don't know, sir. Those guys over at the NRC are pretty shy on this point, and I'm not sure even they know how much. But the amount that is lost in the shuffle every year is quite sufficient to provide for a project like this. You may remember a memo on nuclear security that I sent you in March. The amount of material that we ship from government plants to both foreign and domestic reactors and labs is simply enormous."

"Mike, this is very important. Is the amount lost sufficient for more than one device?"

"Yes, sir. Besides, sir, that's only one source. You may recall the memo mentioned as well the appalling security at our overseas stockpiles of tactical weapons. I mentioned one place, for instance, where nuclear howitzer shells, only eight inches wide and a few feet long, were stacked in the Embassy basement next to the wine! There was a guard, a local, but he had been hired that day. I had hoped that you had read the memo, sir. I thought it important at the time."

"So what you're saying," said the President, "is that we can't necessarily know whose it is, where it came from, or whether there are more to come?" He sounded very tired.

"That's about it, sir."

Tines said, "We do need something to put out." When no one spoke he added, "Maybe in the absence of any clearer idea, we should just put out the military-accident theory, but with noncommittal wording."

Still no one responded. Tines said, "Sir?"

The President said, "Maybe we'll have to. What do you think, Bob?"

Ashe tapped his knuckles on the coffee table and said, "Okay, we've got to do something. But I'm not sure that's it. We've got to keep our eye on the election; it's only a few weeks off." Ashe looked at James and shook his head. "You handed us a big one. Boss, you're Commander-In-Chief, so we can't say it's a military accident. It would make us look sloppy, incompetent, cost us votes. And we sure as hell can't let people think it was a foreign military action of any sort. That would be even worse."

"What's your idea?" asked the President.

"What makes you think I have one?"

"You do. Out with it."

Ashe laughed. "Maybe I've got a little lick of an idea. Look, we don't have much information. So we'd better stick with the info we do have and come up with something that will cover all bases, something we at least know we won't have to take back." He paused, tapping the table. "You

remember what happened to Nixon in the 1970 Congressional elections? I'll bet you remember this one, John. Two nights before the polls opened, he was in San Jose. There were demonstrators, some name-calling, and someone supposedly threw a rock at him. That could have looked very bad. That could have been a demonstration that the Republicans were unpopular, that they couldn't hold the country together, that people wanted a change. But the next night he showed up in Phoenix with Barry Goldwater at his side, and he gave a hell of a speech. It was a flag-waver. It played up the incident big, blamed it on the radicals, the forces of disunity, all those opposed to his Presidency. Of course, that included the Democrats. And he held out the Republican Party as one champion of law and order against such outrages. You remember that speech. It was carried nationwide and coordinated with a blitz of full-page ads in all the big papers. It all worked so well some people later thought he might have hired the rock-thrower himself."

"And it worked?" asked the President.

"Seemed to. They did better than they were supposed to."

The President spread his fingers on the desk top. "Is that what you suggest?"

"Something like it." Ashe was leaning forward now, creating the scene with vivid gestures. "Draw

up the wagons. Declare an emergency. Alert all reserve units. Fly the 82nd Airborne into Illinois. Big show. Lots of noise and press. Make a speech on the networks to calm the voters. Outline the steps being taken. Say that you cannot reveal what the investigation has uncovered, then hint at a radical threat, an attempt to subvert the Constitution and bring anarchy to America. Paint a dark picture and ask the people to give you the backing you need in this crisis. The timing of all this is very important. We have to prolong the crisis atmosphere, if it is to have its greatest effect, until the election. We'll find some rabbit to pull out of a hat the night before."

There was a silence.

The President asked, "What if this gets worse? What if there are more bombs?"

"If there are more bombs? If you make that speech, more bombs would just play into our hands, get the people more excited and afraid, make them look to you for a show of leadership."

"Okay, what if we make all this noise and nothing happens? No more bombs?"

"Then the night before the election, when we're sure there aren't going to be any more, you'll make one more speech in which you manage to take credit for the fact that the Administration's swift action stopped the wave of terrorism. It'll all work out, either way."

A wry smile tugged at the corners of the President's mouth. "Okay. I'll do a Dick Nixon imitation. What was that thing that Kennedy quoted about riding the back of the tiger? You end up inside? Well, we'll ride just this one tiger. Make a draft. Get it to me soon. John, you can tell them we'll have a preliminary statement at 1 A.M. And ask the networks for air time at eight tomorrow. Mike, thanks for coming." He came around the desk to give James a warm handshake. "If you get another note, bring it to me." He was smiling.

* * *

People read it in their morning papers. A-BOMB IN ILLINOIS. Radical Power Play Feared. A steamfitter in San Diego read the article at lunch, chewing slowly. Inspector Tanner heard about it in the office and shook his head.

* * *

After a bad night, a missed alarm, no breakfast, the White House seemed almost calm to Captain James. He immersed himself in the figures he was preparing for the Halliburton Committee. He drank his sweet coffee from its huge mug and let his mind go blank from the rest of the world. It was restful.

When the mail came he went on working. He got more coffee. Coming back with the mug, it suddenly

struck him—there might be another note!

And there was.

Just like before, there was no stamp or return address. He tore it open.

"A coastal town will be next. You have until 9 P.M. EST."

No signature. James picked up the phone. "This is Captain James. Please get me the President. It's important." His voice went thin and reedy on the last words.

The country was wound up. At Dan's, on the south side of Columbus, Missouri, Dan dried his hands for the umpteenth time and watched his customers. People weren't ready to shake and beg, run for the hills, hit the button. But they were drinking slowly, with something like determination. They were tired. After all, Wharton was simply too much. Just before seven, some more neighborhood people came in. Dan turned up the T.V. First there was Roger Mudd, then there was the President. He spoke very seriously, but in a warm, brave way that included them all, made them feel a little warmer and braver themselves. He reassured them about the progress of the investigation at Wharton. He announced that he had activated the National Guard in all twenty-three maritime states as a demonstration of the Administration's willingness to deal directly with

radical scare tactics. He urged them to give him a Congress that would help him stand up for the country, one that wouldn't cave in to extremism.

It was a good speech. People perked up a lot afterward. Dan liked that.

Captain James woke. Ashe was shaking him. James remembered where he was: he had stayed at work in case anything happened, but he must have dozed off on a couch. Ashe was pale. "Wake up, boy," he said. "Crescent City, California, is no longer with us."

That was on the wires, and the people who heard about it when the T.V. programs were interrupted went and told the others. There was a numb feeling, and the mouth of America went dry. There was no communication coming out of the area, and the Air Force had rapidly sealed off the area, so the commentators went on about what Crescent City had been like, how big it had been, how the first reports had come in from Eureka and Coos Bay. Now and then they switched to the White House lawn, where another reporter would tell the camera of the important men who had been arriving, and how they had looked and acted. Many people left their televisions and went for walks,

not going anywhere, but unable to stay home. The streets were full of people who walked and did not shout.

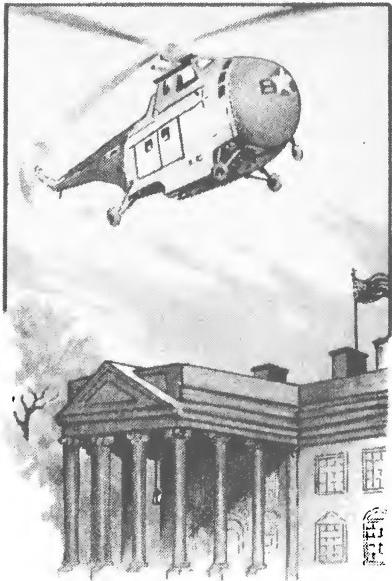
Through the night the President's men talked. There were the figures from the Air Force, the estimate pegged at a 10-K fission device, still small and crude by strategic standards, but much larger than the Illinois device. The Air Force estimate of the dead started at five thousand. It rose to fifty-five hundred, then abruptly to seven thousand. The town was completely gone. At midnight Captain James had found a third note on his door. It was simply a list of cities: "1. New York, 2. Chicago, 3. San Francisco . . ." and so on through "14. New Orleans. Pick one." It was typed the same way, on the same kind of paper.

So that was the argument. Pentagon brass showed up. Senators. Everybody had a plan. Was the note a bluff? Could they plant an even bigger one right in the middle of Harlem or Chinatown? How many dead would that mean? Seventy thousand? A quarter million? Maybe it was a bluff, maybe they only had the two that they had already used. They couldn't blow up a whole city. Who the hell were they, anyway? Look, we'd just have to risk it. A country that had gone through so much to preserve its way of life couldn't give in to a couple of terrorist bombs. We've got to stand up to them. The President himself was

the quietest, just listening, his mouth twisted by some impact, his eyes burning with a strange light. It was Ashe, the Machiavellian calculator, who finally said the obvious: "Boss, we're sunk. Look, maybe it's a bluff. But we can't bet maybe a quarter million people on it. If we surrender, at least the enemy will show themselves and then we can do something. But we can't just dare them to prove that they have a third one. Besides, if they do have a third one, are we going to bet again that there isn't a fourth one?"

* * *

At six A.M. (three A.M. in California) the nation was already glued to the blue-gray light of its screens when the President, broken and struggling, invited the conquerors, whoever they were, to come and take what they wanted. All National Guard units in place were to remain there. The other twenty-seven states were requested to deploy their Guards to maintain order in the next twenty-four hours and to assist local authorities in dealing with the rioting and looting already taking place in some cities. In Naples, Florida, a one-time vaudevillian shook her small fist at the screen and cursed, over and over, until her white curls shook and she dissolved in tears. A warehouse guard in Albuquerque sat outside in the crisp dark with his transistor



radio, watching the first light of false dawn spread into the deep shell of stars.

* * *

So they waited on the White House lawn, T.V. crews and all the rest, waiting in an odd silence, the President, the Secretary of State, Ashe. Everybody. There were huge crowds outside the iron fence, standing in the same immense silence. James could see the crowds stretching for blocks in the haze. Everyone was wilted in the unseasonal sun, and the damp morning of Washington rose around them as they shaded their eyes and searched the sky. White House communica-

tions had established radio contact, then Andrews had picked it up on radar. A lone helicopter. It had one message: all the bombs were still in place. If anything went wrong, they would go off independently whenever their clocks ran out. So the President had ordered the sharpshooters to hold their fire, no matter what.

* * *

It was a dot that one person saw, then another. It grew swiftly, coming in from the southeast. Before long it was clear that it was a big ship. It looked to James now like a Navy CH-53, but it was painted red, white and blue, stars and stripes. It dropped rapidly, slowed, then settled deftly onto the lawn. White House guards rolled out a red carpet under the still-turning blades. People held their hats, the whine of the turbine settled and lost pitch. Guards rolled steps up to the strange craft just as the main hatch swung open and a man stepped out on the steps, smiling, waving, his fingers spread in V's. James was startled by the familiar figure. He looked at the President. The President's face was unreadable, filled with tears, wrenching into horrible expressions. The rotor blades had stopped. The new Leader strode confidently down the steps and walked toward the President. His trip from California did not seem to have tired him. ★

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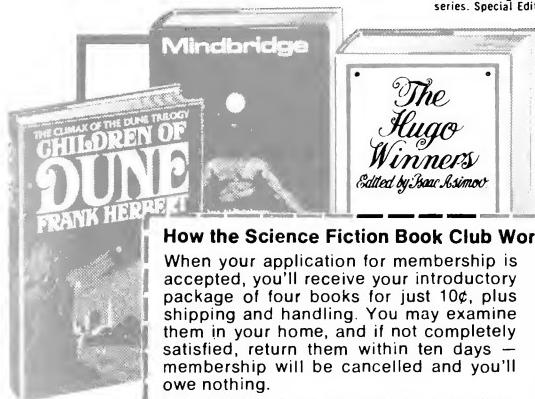
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